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Surgery

Benign Esophageal Obstruction Roger Wilson, M.D.

It is not my intention in this paper to cover the entire subject of benign esophageal obstruction, but rather to remark on the more common conditions comprising this group as well as some rarer diseases it has been my fortune to have some connection with, as a general surgeon with a special interest in the upper gastro-intestinal tract.

Congenital Atresia of the esophagus should be suspected whenever a newborn infant has excessive pharvngeal mucus. Nursing is usually quite characteristic with normal sucking and swallowing, followed by regurgitation of unchanged milk, choking, coughing and cyanosis. Several varieties of atresia occur, nearly all associated with tracheo-esophageal fistulae. The most common type consists of a blind upper esophageal pouch, and a lower esophageal segment which connects the stomach to the trachea. Life is threatened by starvation and by aspiration of saliva or regurgitated gastric content. Obstruction to the passage of a soft rubber catheter and X-ray studies after lipiodol instillation confirm the diagnosis. The ultimate ideal of all surgical attempts is union of the upper and lower segments as soon as the diagnosis can be made.

Congenital Anomalies of the esophagus other than complete atresia, undoubtedly occur more frequently than is generally recognised. Insidious dysphagia, often regarded as a feeding problem is the cardinal symptom. On occasion the condition remains hidden until revealed by impaction of food or a foreign body or by perforation at the narrowed lumen.

These anomalies present in three principal forms: congenital esophageal web, stenosis and short esophagus. All three respond well to several dilatations with graduated esophageal bougies. I recall a boy of 13 years who had been a "bad eater" since birth. Barium Swallow revealed a short congenitally stenotic area reducing the esophageal lumen to a third of its diameter. Lasting relief was obtained by two dilatations at a six-month interval. Another case in mind is that of an elderly man who had never enjoyed a larger aditus to his esophagus than that which would admit a lead pencil. This defect was unrecognised and led to his undoing when the congenital web encircling the opening was inadvertently split by the blind passage of a flexible gastroscope leading to fatal mediastinitis.

Presented at the Annual Meeting of the Manitoba Medical Association, Winnipeg, October 12th, 1954.

On occasion such lesions simulate carcinoma. Of recent memory is a high complete esophageal obstruction in a middle-aged women and showing only chronic non-specific inflammation on repeated biopsy, and cured by dilatation. The inflammatory change probably on the basis of traumatic ulcer with infection, was sufficient to make manifest a pre-existing congenital web stenosis. The patient's sister suffered a similar condition some years previously in another city and was cured in a similar manner.

Foreign bodies can obstruct the stenosed or normal esophagus. Varying degrees of dysphagia result and severe pain is common if the object is sharp. Esophageal laceration from a foreign body will give identical symptoms and is often the only positive finding on endoscopic examination. Most objects become lodged below the crico-pharvngeal fold, but some are arrested at the aortic and diaphragmatic narrowings. Children and psychotics comprise the two largest groups. The commonest foreign bodies are coins, pins, needles, glass and razor blades Chicken bones and chunks of meat are common offenders of the normal adult esophagus. A.P. and lateral radiographs are usually most helpful in diagnosis. The coronal disposition of the long axis of the object in the lateral film with the tracheal air shadow lying anterior make its location in the esophagus and not the trachea certain. Radio translucent objects can often be detected fluoroscopically by transient or permanent hold up of barium impregnated cotton pledgets.

The great majority of esophageal foreign bodies will pass without trouble. However, none should be permitted to remain stationary for longer than 24 hours, since after this time esophageal ulceration or penetration leading to mediastinal cellulitis or abscess are possible sequelae. Esophagoscopic removal is also recommended at once, for all objects whose size or shape indicate that their progression is unlikely. I recall a middle-aged man who developed sudden esophageal obstruction following a meal which included peas. He had suffered some dysphagia since childhood, the result of a lye burn contracted in infancy. Barium swallow showed a spherical filling defect, the pea, obstructing the entrance to the stricture. Following the endoscopic removal of sharp or large objects when esophageal penetration is possible, a careful watch for cervical crepitations, rise in temperature, dyspnoea and pain is kept, for there is no substitute for early and forthright mediastinotomy in the management of esophageal perforation.

Traumatic esophageal stenosis occur in a great variety of ways. Gun shot wounds, "cut throat" injuries, foreign body perforations and periesophageal abscesses are some modes of origin. The most common, however, is the deliberate or accidental swallowing of caustics. The commonest caustics are solutions of lve, Drano, Sani-Flush, etc. which for the main part consist of sodium hydroxide and sodium carbonate. Victims of these injuries fall into four well defined groups. Children under five who drink lye mistaking it for milk, boys between five and ten who drink it "on a dare," girls between ten and twenty who drink it in a dramatic unsuccessful suicide gesture, and the over twenties who are as a rule definite psychotic personalities.

The acute burn is best managed by liberal exhibition of weak antidotes. Vinegar or orange juice in the case of lve, sodium bicarbonate in the case of acids. In children laryngeal edema is a threat to life and tracheotomy is often necessary in the first 24 hours. Fluid and caloric requirements are at first administered intravenously if swallowing is impossible, and consideration is given to the establishment of a feeding gastrostomy if there is no early improvement in this respect. If swallowing is extremely difficult a string is swallowed to maintain continuity of the esophageal lumen. Largely due to the work of Salzer in Vienna an aggressive attitude to this condition to prevent or minimize the degree of stricture formation has been widely adopted. Well lubricated graduated mercury-filled rubber bougies are passed daily commencing the day following the injury. When the maximum size has been reached, say No. 40 French in an adult, treatment is reduced to dilatations twice a week for a month; then weekly, and finally once a month. As the evidence of absence of stricture is apparent dilatation can be made at greater and greater intervals. Under no circumstances should treatment be discontinued when normal deglutition returns. If the esophagus has been burned, stricture formation may develop at any time in the life of the patient. Occasional dilatations possibly only every year or two should be done the remainder of the patient's life. Cortisone by inhibiting fibroplasia greatly diminishes the tendency to scar tissue contracture in sodium hydroxide burns of the esophagus, experimentally produced in animals. Its effect clinically is still under investigation.

Established chronic strictures due to caustics are seen not uncommonly. If complete obstruction has occurred these strictures are usually multiple or spiral in shape. Varying degrees of weight loss, dehydration and vitamin deficiency may present, as well as bronchiectasis, lung abscess, suppurative bronchitis or acute tracheo bronchitis from overflow into the tracheo bronchial tree of pharyngeal

and esophageal secretions. Many of these strictures can be dealt with by dilatation with bougies under direct esophagoscopic vision, or blindly over a swallowed thread. Retrograde dilatation via gastrostomy often succeeds when peroral dilatation has failed. Sometimes combined peroral and retrograde intubation under biplane fluoroscope guidance is a useful method of re-establishing the lost lumen. When the lumen is completely obliterated or greatly stenosed over a long area, and the patient's life made intolerable by the presence of a permanent gastrostomy, consideration should be given to either a transthoracic esophagogastric anastomosis if there is some patent esophagus in the upper thorax, or an anterior mediastinal cervical esophago-jejunostomy if this is not so.

The recorded etiological agents producing esophagitis form a lengthy list, but in my experience regurgitation of acid-pepsin mixture through an incompetent cardiac sphincter associated with sliding hiatus hernia is by far the most common one. This esophagitis at first produces obstruction by spasm and later by true cicatricial stenosis of the eroded or ulcerated esophagus. These troubles are sometimes first made manifest late in life, or remain symptomless until brought to light by some minor esophageal trauma. Three cases fresh in my memory were first evident during the gastric intubation period following cholecystectomy. The relationship between gall bladder disease and hiatus hernia is a close one and warrants further clinical study. Dysphagia and epigastric distress, more particularly after the largest meal of the day and on lying down are common complaints in uncomplicated sliding hiatus hernia. Roentgen studies reveal the esophago-gastric junction above the diaphragm and the gastric rougae crossing the diaphragm level. Esophagoscopic examination shows loss of the normal hiatal pinchcock, inflammation or fibrous stenosis of the distal esophagus and gastric mucosa confirmed by biopsy well above the level of 40 cm. from the upper alveolar margin.

Allison has shown the benefits which accrue from early operation before fibrous stenosis ensues. By the transthoracic route the hernia is reduced, the separated limbs of right crus of the diaphragm approximated and the esophago-phrenic ligament reconstructed, all of which restore the normal esophago-gastric pinchcock mechanism. If the patient is elderly or the victim of constitutional weakness precluding major surgery, as is often the case, left phrenicotomy will often give remarkable relief of symptoms. I have found great satisfaction in both of these procedures.

In the presence of established fibrous stenosis operative reduction and hernial repair is impractical because of cicatricial fixation of the esophagus. Most of these people can be successfully handled by periodic dilatation with gum elastic

graduated bougies in addition to the exhibition of alkalis, antispasmodics and a bland diet. A gastrostomy may be required in a severe case. The management of fibrous stenosis here following peptic ulcer without hiatus hernia would follow along similar lines. I have several old gentlemen with sliding hiatus herniae who have been kept relatively free from symptoms by routine bouginage.

In refractory cases or when repeated life threatening hemorrhage complicates the picture, excision of the lower esophagus and cardia becomes necessary. The best "hook-up", after such an excision is a debatable point. Wagenstein has advocated esophago-pylorostomy with vagotomy on the ground that subsequent regurgitation of gastric content can only be alkaline and so, harmless to the esophagus. Observation of a case done elsewhere and complicating in our hospital, as well as observation on some of my own resections for malignant disease in this area, where such an operation is a routine, lead me to believe that the esophagus is equally irritated by alkaline juices. For these reasons I am in favour of an esophagojejunostomy, "en Roux-y."

One of the more unusual types of benign esophageal stricture is that produced by Scleroderma. The esophageal lesion is usually just one manifestation of generalized disease. These strictures are commonly long and tortuous, occasionally short and simple. Sometimes esophageal widening results from diffuse intramural thickening. A case in point is that of a middle-aged woman who has moderately well advanced skin changes. Some improvement was effected by ACTH and cortisone therapy. Dilatation was carried out under direct esophagoscopic vision following biopsy. Later dilatations were done blindly. She now keeps herself comfortable with bi-monthly passage of a No. 24 mercury filled bougie.

Benign Tumors of the esophagus as a rule produce obstruction only after they reach great size. The commonest one is leiomyoma which occurs most frequently at the lower third. Sudden hemorrhage from ulceration of the overlying mucosa may lead to their discovery before dysphagia, regurgitation or increased salivation become manifest. Mis-diagnosis of cardiospasm, benign stricture and thoracic stomach are not uncommon since the overlying mucosa is often normal and transoral biopsy hazardous. Excision by the transpleural route is the treatment of choice. The fortuitous location of these growths within the musculature of the esophageal wall with no involvement of the mucosa frequently permits their enucleation without entering the lumen of the esophagus. Only last week I had a case of this kind where the tumor, the size, shape and consistency of a small potato, shelled out quite readily from the mid-esophageal muscularis. In a few instances

local excision of esophagus is necessary and a small minority require esophago-gastric resection.

Diverticuli of the esophagus when of the pulsion type and of large size are a potent reason for esophageal obstruction. They are of three types: hypopharyngeal, esophageal nd supra diaphragmatic. The hypopharyngeal lesions often assume tremendous size and have always been attended with relish by teachers and students of surgery alike, as tangible and demonstable evidence of a disease process with a bizarre flavour. Difficulty in swallowing is the earliest complaint, liquids giving more trouble than solids. Regurgitation of food by posture or neck pressure is a favorite trick practised by these patients. Pressure symptoms such as dyspnoea, pain and voice change are not uncommon in the large lesions. Examination by barium swallow X-rays is most informative. Protrusion is through the functionally weak interval between the transverse and oblique fibres of the inferior constrictor muscle of the pharynx. Negus has explained this weakness on a developmental basis and supports this theory on evidence from comparative anatomy. Thorough and repeated lavage of the sac is necessary before operative excision can be contemplated. The one-stage procedure is best. The two-stage operation should be reserved for elderly or cachectic patients, or when the sac is edematous or of huge size. In either case it is wise to drain the mediastinal bed following excision of large diverticuli. More rarely esophageal obstruction is due to pulsion diverticuli of the mid and supra-diaphragmatic esophagus. The latter may assume large size and can be satisfactorily excised by the transpleural approach. Smaller ones are amenable to simple invagination.

Cardiospasm or achalasia of the esophagus, the clinical syndrome of dysphagia associated with nonorganic obstruction of the lower esophagus presents a gross anatomical picture. There is a point of narrowing where the esophagus passes through the diaphragm. This region can be readily distended by firm expansile pressure from within. Above this the esophagus funnels out smoothly and sharply and may be dilated to three or four or more times its normal diameter. Here the wall is hypertrophied. There is a striking loss or complete absence of ganglion cells of the myenteric plexus in the narrowed area. What bearing this has on the etiology of this condition is not yet clear.

Dysphagia, pain and regurgitation of food usually have their onset between the 20th and 40th year. Patients adopt various procedures to force the food into the stomach. Some obtain relief by standing and drinking large quantities of fluids; others by closing the glottis are able to compress the esophagus by increased intrathoracic pressure and thus force food through the trouble zone. Associated inflammatory diseases of the

lungs from "spill-over" into the trachea are not uncommon. The diagnosis is made by X-ray and by the passage of a large sound. The esophageal silhouette may be fusiform flask shaped or sigmoid. If a size 60 F. sound can be passed over a swallowed thread into the stomach with only slight resistance, organic obstruction is ruled out.

The treatment of cardiospasm is primarily non surgical. About 75% of these cases respond well to dilatation with a pneumatic or hydrostatic bougie. The bougie is positioned at the cardia, and distended with a pressure of ¾ atmosphere. A sickening pain is experienced by the patient at the time of distension. Correct positioning is facilitated by fluoroscopy. Dilatation produces a rupture of the circular muscle fibres at the site of narrowing—and might be called a "medical" Heller operation.

One or two dilatations usually suffice. The immediate relief is quite dramatic and lasting relief context in the inexplicably lasting. On a small percentage of grases surgical attack on the cardia is required. This properties is usually in the advanced cases where irreversible the changes of esophageal lengthening and true megaces of esophageal lengthening and true megaces of the properties of the case of the properties of the case of the properties of the p

Many techniques have been employed to wider a the narrowed terminal esophagus. All of them, with the exception of the Heller operation have led to be regurgitant esophagitis with its evils of erosion rulceration and hemorrhage. The Heller procedure is readily performed by the abdominal route and simulates technically the Ramstedt operation for congenital pyloric stenosis. Local experience with this operation is good.

Medicine

Allergy in Relation to Pediatrics Percy Barsky, M.D.

Allergy is an altered reaction to substances called allergens, to which the individual has been exposed by inhalation, ingestion, or contact. Many allergens are of protein origin, and one may become sensitive to foods, plants, oils, animal dander, or serum; to such things as dust, feathers and bacterial moulds. The production of an allergic reaction depends upon the release of some unknown substance. This material is produced by the interaction of the allergen, with an agent in the human tissues, which is known as an antibody. The allergic response may manifest itself in various tissues. The localization of the reaction is dependent upon the bodily route of entry taken by the excitant material. In this manner, substances which are contacted may give rise to an Eczematoid Dermatitis, while an ingested item of food may cause Intestinal Colic, or an inhaled allergen produce the clinical picture of Perennial Allergic Rhinitis. Paradoxically, an ingested dietary substance such as the albumen of egg may also produce a clinical eczematoid eruption.

For the purposes of differentiation the types of allergy are split into two main groups. There is the class of Spontaneous Allergies exemplified by disorders such as Hay Fever, Asthma, Eczema or Urticaria. The second group is commonly referred to as the Induced Type and examples are seen in the drug allergies and contact rashes. The Spontaneous Allergies are characterized by an hereditary tendency, and contact alone will not produce the symptoms. The specific form which a Spontaneous Allergy will assume, is determined by the cells that are sensitized, and the degree of exposure to the particular allergen. The child with sensitive nasal mucous membranes, when exposed to sufficient quantities of pollen, may develop Hay Fever.

In contrast to those responses which appear spon taneously, the induced reactions may be produced by applied irritants or by injections. Poison Ivy when applied a second time to the skin of an infant, may result in a dermatitis.

The tendency or ability to become sensitive is inherited. If both of the parents are from allerging families, then the child will be easily sensitized to which an individual will become sensitive. If mother overindulges consistently of a special food article, during her pregnancy, then the developing baby in the uterus may become oversensitized to that material. When this is given to him, later is life, he may develop an allergic response. The commonest foods which give rise to difficulty is allergic children are milk, wheat, and egg. A child may be allergic to any or all of these.

The parent may suspect the infant to be aller gic, if there is a strong family history of Asthma Eczema, or Hay Fever. He may be suspicious of an allergic state if the child suddenly develops skin eruption following contact with some new material like the wool in a helmet or hat. If there are repeated upper respiratory episodes, with clear mucoid, nasal, and ocular discharge plus a dr cough, then he may well consider this a possibility The mother may think of an allergic disorder when the infant suddenly develops intestinal colic, loos stools, and Eczema, after the introduction of a new article of food such as egg or wheat. The incidence of allergy to cow's milk ranges as high as 7% This may only be proven by removal of the mil from the infant's diet.

The child with an allergic disorder may be managed in various ways. The cause must be determined before the institution of an effective program of treatment. Of foremost importance a careful personal and family medical history. The

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m a family history of Asthma or Eczema is forthief coming in cases belonging to the spontaneous of group, has already been mentioned. In cases of his possible allergy the cause may sometimes be ascerble tained by relating the attacks to exposure to ga common agents in the environment and by testing ta- with the suspected allergens. Ragweed and grass e. pollens are the commonest of inhalant materials ler associated with Bronchial Asthma, and these ith excitants are closely followed by house dust and to bacterial moulds. The production of Asthma as a on result of pollen inhalation is usually seasonal. are Asthma, which occurs throughout the winter and other seasons, is likely due to house dust.

In children and infants, food often acts as an for it allergen and can incite an attack of major allergy such as Bronchial Asthma. Because a food allergen may not demonstrate its tendency to create difficulty until long after ingestion, discovery of the excitant causal substance may be extremely difficult. It is much simpler to withhold from the diet of a potentially allergic child the food article on which might precipitate an attack. It is now possible for pediatricians to apply the general vy principles of prophylaxis or prevention, to the ar management of potentially allergic children. It has already been stated that the development of the Spontaneous Type of allergy is dependent upon gi the inherited tendency of the infant to become ed sensitive. A potentially allergic infant is a child who has at least one allergic parent, brother or sister. The complete exclusion of the excitant protein material, i.e., milk, wheat or egg, for the first few weeks of life may minimize or even prevent the development of an allergic diathesis.

Pediatricians have been concerned with the physical and mental growth of children, and much emphasis has been placed upon the prevention of infection, and nutritional disorder.

It may now be possible to reduce the incidence of major allergic syndromes which have proven a most perplexing problem for both parent and physician. Any measure which will reduce the incidence of even a minor allergy during infancy, reduces by a significant degree, the possibility of a major allergy after the age of 6. The regimen excluding the excitant protein material must be instituted from the moment of birth. By substituting hypo-allergenic protein substances, it is possible to maintain these infants on a diet which is both nutritionally sound and hazard free. The most important single factor in the control of allergenic disorders is the prevention of their onset in the potentially allergic infant.

Once the symptoms have developed, there are various procedures which can give relief. The most vital measure is the discovery and removal of the excitant material. If the causal agents are pollens or dust, then skin testing may be undertaken. There is doubt about the value of skin testing with food extracts, and in these cases food elimination diets are utilized. Children, who are sensitive to inhalants, may gain relief by the use of an air conditioner, by removal of dust traps such as rugs and furniture covers, and by eliminating household pets. Where it is not possible to reduce the contact with the allergen, a program of specific hyposensitization to the allergen may be used. In addition to these measures there are dozens of drugs which have been more or less successful in bringing comfort to allergic children.

The ultimate outlook for any patient with a major allergy depends on many factors, not the least of which is the ability to obtain the comprehensive medical, social and psychological treatment necessary for the individual and his family. Children whose Asthma is the result of a pollen sensitivity, have an excellent outlook for relief as long as they are not exposed to the substance. On the other hand many cases of major allergy, e.g., Asthma, have to be considered as a chronic disease process, and such children can be kept relatively free from symptoms and live a normal life span by the application of modern medical treatment.

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Psychiatry

Electroshock Gilbert L. Adamson, M.R.C.P. (Ed.), F.R.C.P. (C.)

Not long ago a widespread criticism of psychiatry was that it was "a talking treatment." This was usually uttered in a contemptuous withal somewhat pitving way, by witty members of the profession who, by implication, did not depend, to any extent, on verbal communication with their patients. Such criticism or casual dismissal, was and is true. Psychiatric practice does depend on talk (especially by the patient) to a very great extent. By comparison with other fields of medicine little dependence is put on pills, potions, liquors, elixirs, gadgets, or the use of the knife, drill, needle, saw or other instrument of attack used in extirpation, curettage, amputation, short circuiting, decompression and grafting (especially Psychiatrists (by comparison with grafting)! other practitioners) tend less to useless x-ray examination, gastric analysis, blood chemistry and 17 ketosteroid calculation. In this sense psychiatric practice is more closely linked, than are other fields of medicine, with other "talking treatments," such as religion, education, philosophy and politics.

But now the criticism of psychiatry has changed. Contumely for having nothing but "talk" for his patients is no longer heaped on the psychiatrists' head. He is now ridiculed because of his propensity to treat certain of his patients with a gadget-an electroshock machine! He is now referred to as an "electrician" and a "push button practitioner" and in other opprobrious and less printable terms. This he bears with what grace God gave him and that noble equanimity which characterizes him. But he feels that his detractors usually know little of the realities of the situation: and that indeed, his most vociferous critics are often those who know least about his work. In any event there is little understanding, in the profession, of the use of electricity in the treatment of nervous and mental disorders. It is for this reason that a brief outline of the development of electroplexy, its use and limitations, may be of interest.

Shock of one kind or another, as a form of treatment in mental illness, is not a modern idea. Many forms of heroic, brutal and cruel treatment were used in the middle ages, and literature is replete with allusions to instances of dramatic cure when some form of single shock had been experienced accidentally, or imposed deliberately.

Modern shock therapy, however, began in 1934 when Meduna gave crude camphor intramuscularly to schizophrenic patients. He believed that epilepsy and schizophrenia were "antagonistic"

diseases. He, therefore, hoped that he would benefit the schizophrenic patient by making him convulse. Though his premise was wrong, his treatment did seem to have beneficial effects. It was therefore, given to patients with melancholia, and found to be even more effective.

But camphor given intramuscularly was unsatisfactory in several ways. Convulsions were produced at varying intervals of time and the a patient could not, therefore, be well controlled c during them. Sometimes several convulsions followed one injection, occurring as long as 36 hours after it. The use of Metrazol (Cardiozol) intravenously constituted a refinement that made con-t vulsive treatment safer and more applicable. It v appropriate dosage Metrazol produces a single s convulsion immediately, so that the patient can t be protected from injury. There is no danger of p repeated convulsions or delayed effects. This form V of convulsive treatment was given in Winnipeg t from 1937 until the electroshock machine became " available in 1943. Metrazol had a few disadvantages. The worst was that the patient experienced I a vivid aura which he was able to recall after h recovery of consciousness. Another difficulty was I that Metrazol is a sclerosing agent and after a t few treatments veins were sometimes hard to find A third disadvantage was the severity of the convulsion produced.

The electrical induction of convulsions has none of these disadvantages. Loss of consciousness is immediate and without aura, and the convulsive reaction is less severe. But the development of the technique was difficult. The investigative work was begun and electrical convulsive treatment first applied by Ugo Gerletti¹, an Italian doing research in Genoa. He was at that time (1933) inducing fits in dogs by means of an electric shock using mouth-rectal electrodes. This work was aimed at discovering the genesis of certain pathological changes commonly found in the brain of epileptics. He had just got well started on these researches when he was appointed Professor of Neuropsychiatry in the University of Rome (1935) The final stages of the work were completed there with the aid of Doctor Bini, a member of his staff

Convulsing dogs with electric shocks in his experimental work and human beings with Metrazol in his clinic work, Cerletti naturally began to think about the applicability of electrical stimul to human beings. "But this idea, then and for a long time to come, appeared Utopian, because of the terror with which the notion of subjecting a man to high tension currents was regarded. The spectre of the electric chair was in the minds of all and an imposing mass of medical literature

enumerated the casualties, often fatal, ensuing upon electric discharge across the human body. Nowadays that terror may seem to have been exaggerated; but cases of death caused by low tension (40 volts) had been described. Since, to at obtain fits in dogs, tensions of around 125 volts were used, moreover, with an alternating current —which was held to be more dangerous than direct—it seemed evident that these experiments were too near the danger zone to have any possibility of being applied to man. The fact is that no one at the clinic seriously thought of applying electric convulsions to man, even though experiments continued upon dogs, both with electricity and with Cardiazol. So, over a year went by."

Cerletti's experience with dogs had taught him on that he could administer almost any reasonable Tr voltage with safety if he controlled the time of the gle stimulus within rigid limits. He felt, therefore, an that electric stimulation was a potential theraof peutic weapon in man if a technique could be rm worked out. He was turning over in his mind eg this problem when a friend informed him that ne "at the Rome slaughter house pigs are killed by electricity." He decided to see this operation for ed himself. There, he was told that electricity had ter been used in the butchering of pigs for years. But he discovered that the animals were not killed in this manner. They were convulsed by an electrical d current applied to their heads, then as the convulsion subsided, their throats were cut and they were bled.

Cerletti now set to work to discover exactly what was necessary to kill the pigs by means of an he electric current, in other words, the minimum voltage and time invariably lethal. He experimented with different voltages applied over varying lengths of time; and by various electrode placements. He found out that currents passed through the head were tolerated better than when passed across the chest, for then long periods of apnoea and sometimes death ensued. He repeated his "treatment" of pigs so frequently that at last he felt confident that a convulsing current of electricity could be passed through the heads of humans without fear of permanent damage. He knew that the appropriate voltage was in the neighborhood of 100 to 125 volts and that the safe time of application was about 0.3 seconds.

So he decided to apply such a current to the head of a human. Cerletti describes amusingly and vividly the subsequent procedures: "These clear proofs, certain and oft repeated, caused all my doubts to vanish, and without more ado I gave instructions in the clinic to undertake next day, the experiment upon man.

"A schizophrenic of about 40, whose condition was organically sound, was chosen for the first test. He expressed himself exclusively in an in-

comprehensible gibberish made up of odd neologisms, and, since his arrival from Milan by train without a ticket, not a thing had been ascertainable about his identity.

"Preparations for the experiment were carried out in an atmosphere of fearful silence bordering on disapproval in the presence of various assistants belonging to the clinic and some outside doctors.

"As was our custom with dogs, Bini and I fixed the two electrodes, well wetted in salt solution, by an elastic band to the patient's temples. As a precaution, for our first test, we used a reduced tension (70 volts) with a duration of 0.2 seconds. Upon closing the circuit, there was a sudden jump of the patient on his bed with a very short tensing of all his muscles; then he immediately collapsed onto the bed without loss of consciousness. The patient presently started to sing at the top of his voice, then fell silent. It was evident from our long experience with dogs that the voltage had been held too low.

"I, bearing in mind the observations with repeated applications of the day before upon pigs, made arrangements for a repetition of the test.

"Someone got nervous and suggested whisperingly that the subject be allowed to rest; others advised a new application to be put off to the morrow. Our patient sat quietly in bed, looking about him. Then, of a sudden, hearing the low-toned conversation around him, he exclaimed—no longer in his incomprehensible jargon, but in so many clear words and in a solemn tone—"not a second. Deadly!"

"The situation was such, weighted as it was with responsibility, that this warning, explicit and unequivocal, shook the persons present to the extent that some began to insist upon suspension of the proceedings. Anxiety lest something that amounted to superstition, should interfere with my decision urged me on to action. I had the electrodes reapplied, and a 110 volt discharge was sent through for 0.5 seconds. The immediate, very brief cramping of all the muscles was again seen; after a slight pause, the most typical epileptic fit began to take place. True it is that all had their hearts in their mouths and were truly oppressed during the tonic phase with apnoea, ashy paleness, and cadaverous facial cyanosisan apnoea which, if it be awe-inspiring in a spontaneous epileptic fit, now seemed painfully neverending-until at the first deep, stertorous inhalation, and first clonic shudders, the blood ran more freely in the bystanders' veins as well; and, lastly, to the immense relief of all concerned, was witnessed a characteristic, gradual awakening "by steps." The patient sat up of his own accord, looked about him calmly with a vague smile, as though asking what was expected of him. I asked him: "What has been happening to you?" He answered, with no more gibberish: "I don't know, perhaps I have been asleep,"

That is how the first epileptic fit experimentally induced in man through the electric stimulus took place. So electroshock was born; for such was the name I forthwith gave it."

Since that time in 1937, electrotherapy has been widely used in psychiatry. Each year, its use as a therapeutic procedure has become more precisely defined. It is now used infrequently alone in the treatment of true schizophrenia, though its application combined with insulin coma therapy is considered by some to be more effective than insulin alone. Insulin coma treatment is not given in Winnipeg. As the treatment takes two to four hours during which time the patient must be under close observation, it is given only in the Provincial Mental Hospitals where groups of patients are treated simultaneously in a specially organized ward.

Electroshock is the treatment of choice in certain of the depressive illnesses. It is indicated especially in the agitated depressions of the involutional period and the senium. Neurotic depressions, where the mood of the patient is not really abnormal but merely reflective of his

inability to make his neurotic behaviour pattern work for him adequately, do not respond as well or in as specific a manner. When electroshock therapy is given in such instances, it must be combined with subsequent psychotherapy.

Socalled "endogenous" depressions also respond well to electroshock. The uninitiated usually mistake these illnesses for neurosis. And, indeed, the diagnosis may be difficult to make.

Because of the limitations of the effectiveness of electroshock therapy, no reputable psychiatrist administers it to more than a fraction of the patients under his care. But because, when appropriately used, electroconvulsive therapy produces well defined and fairly rapid results—much quicker and more striking than any other psychiatric treatment—it is more impressive than anything else a psychiatrist can do. Indeed it is sometimes as dramatic as surgery although why it works is no more better understood than the reason for the success of certain surgical operations.

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Article

Hospital Records Murray Campbell, M.D.*

During the latter part of October, Dr. J. J. Laurier, field surveyor of the Joint Hospitals Accreditation Commission was in Manitoba. Dr. Laurier was here to survey certain hospitals and to report his findings to the Commission headquarters in Chicago. The Commission would then decide on the point system which is used whether the hospital concerned should be accredited ("approved") or provisionally accredited, or if it had been previously accredited whether its work merited the continuance of such recognition. Additionally a hospital which had been previously rated as provisionally accredited could if the improvement in its standards warranted it, be fully accredited. The Joint Commission on Accreditation is the outgrowth of a parent organization set up by the American College of Surgeons during the first World War to decide which hospitals provided adequate training for those physicians who desired to become Fellows of the College. Later the scope of this organization was broadened until it encompassed the grading of hospital work in all its aspects. For many years the guiding spirit of this organization was Dr. Malcolm MacEachern, a

former Canadian. In 1952 the Joint Commission was formed and it is supported by most of the major medical and hospital associations in Canada and the United States. Canada has a representative on the Commission and it is hoped that within a few years there will be an entirely Canadian Commission to assess the work of hospitals in Canada.

In a large hospital one-eighth of all the points in the point-rating system are for records. The Commission requires that "Accurate and complete records be written on all patients and filed in an accessible manner, to include identification data, personal and family history, history of present illness, physical examination, special examinations such as consultations, clinical, laboratory, X-ray and other; surgical or medical treatment; gross and microscopic findings, progress notes, final diagnosis, condition on discharge, follow-up and in case of death autopsy findings." It will be agreed that most hospitals have a long road to travel to attain this ideal on all its records, but it should also be remembered that during the past fifteen or twenty years there has been an increasing awareness by the physician of the importance of good records and an increasing willingness on the part of hospitals to spend considerable sums of money in employing registered record librarians and adequate staff to deal with the records.

^{*}Registrar in Medicine, General Hospital, Winnipeg.

When a patient is discharged from hospital, his history goes direct to the record office and the diagnosis is coded on the appropriate card according to the numbers given the diagnosis in the Standard Nomenclature of Disease. The first three numbers indicate the anatomical site of the disease and the system involved — the other three are used to indicate the disease. There are also numbers for manifestations of the disease. It should be remembered that such terms as congestive heart failure and angina pectoris are not diagnoses, but manifestations of disease such as arteriosclerotic or rheumatic heart disease. The patient may have two diseases such as duodenal ulcer and diabetes. If the admission was because of symptoms of the former, that is the primary diagnosis and the diabetes the secondary diagnosis. If then an investigator wishes to know how many patients in the hospital have had both diagnoses it is easily ascertained from the cross-index system. The librarian then checks the record for shortcomings - is the diagnosis consistent with the history? - has the history been thorough? — are there adequate progress notes and in surgical cases proper and complete operation notes? — has the record been signed and thereby approved. If there are deficiencies the record librarian will call it to the attention of the physician concerned, but that is all she may do and her request may or may not be complied with. If the hospital is a small one the problem may be referred to the superintendent if it is a large one it should have a records office committee where such problems can be discussed and dealt with and if necessary referred to the executive of the medical staff.

This problem of incomplete records is and has always been one of the great stumbling blocks to good patient care, accurate statistics and contributory research.1 While good records are the responsibility of the individual physician, the onus is on the hospital to ensure that he discharges this obligation. Good records are as much a part of good hospital care as good anesthesia. One writer states that the patient would actually have the right to refuse to pay if he were in a position to know that his record was deficient or incomplete. That may be carrying things a little too far, but it does serve to emphasize the hospital or administrative responsibility. How does a hospital obtain good records? Not long ago the Chief of Staff in a large Eastern hospital 'phoned the admitting office to obtain a bed for the son of the hospital administrator. He was advised that he had received and disregarded three notices asking him to complete histories and he would be unable to admit patients until his histories were completed and signed. He complied with the "order" — based

on a ruling of the hospital staff that denied hospital privileges to the staff members who were persistently delinquent with their records. This ruling is now in effect in many hospitals.

Complete records have other uses - if a patient is bringing suit against a physician good records often play an important part and usually to the advantage of the doctor in court procedures. Well-documented records are also important from the point of view of investigations and research. Insofar as I am aware no hospital in Manitoba carries out a complete medical audit, but it is used in many hospitals in the United States and probably will be an integral part of hospital procedure here in the not-too-distant future. The essential or the fundamental of the audit is an adequate history. What is the medical audit? Its purpose and mechanics may be summarized as follows: "The quality of medical care rendered by the individual physician determines the quality of care credited to the medical staff of the hospital, and medical records present a complete picture of the care given by the individual physician to each case. Thus to determine the quality of medical care rendered by any medical staff, that rendered by the individual members of the staff must be evaluated. This can best be done by assembling the objective facts from the medical records and having them interpreted and evaluated by an independent medical auditor or a medical audit committee of the staff. primary purpose of a medical audit is to evaluate the quality of medical care rendered in the hospital, not to sit in judgment on the work of any individual physician. It is a co-operative program entered into by the medical staff and administration."

"The majority of hospitals are cognizant of the value of a medical audit, and many are carrying on such a program with varying degrees of elaboration and success. An internal audit is done in many hospitals because of lack of independent auditors. Such an internal audit can be just as successful as when an independent auditor is employed, but the results depend entirely on the sincerity of the medical staff."

In order to accomplish the healing of the sick in hospital the patient's record must contain sufficient data written in the sequence of events to justify the diagnosis and warrant the treatment and end results. As Charles Wilson remarked when he was President of General Motors, "every activity in this modern age must be helped on its way by a piece of paper."

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Gynaecology

Section "B" No. 8 An Anatomical Description of the Pelvic Floor Harley Hughes, M.D.

Pelvic Floor

Hart has defined the pelvic floor as an irregularly-edged segment of a hollow sphere with an outer skin aspect and an inner peritoneal one. It is the so-called "soft parts" filling the outlet of the bony female pelvis. He has divided the floor into two segments; an anterior or pubic segment and a posterior or sacral segment.

The anterior or pubic segment consists of the anterior wall of the vagina, bladder, urethra, most of the urogenital diaphragm, peritoneum and fascia. It is made up of loose tissue, is loosely attached to the pubic symphysis and is drawn up in labor.

The posterior or sacral segment consists of rectum, obstetrical perineum, posterior vaginal wall, anal canal, perineal body and most of the pelvic diaphragm. It is made up of dense tissue, is firmly dove-tailed into the sacrum and coccyx and is driven down during labor.

The division of the pelvic floor in this manner by Hart is done, not so much from an anatomical point of view, but more from a functional one, his view being that, as the baby is born through the vagina, the structures anterior and posterior to this canal should be considered separately both from an anatomical and functional standpoint.

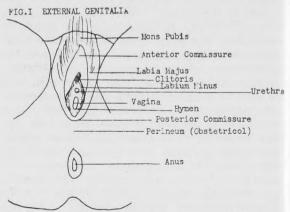
Another way of subdividing the pelvic floor, essentially from an anatomical standpoint and which will be used in this description, is as follows:

- 1. Skin, external genitalia, anus and superficial fascia.
- Superficial transverse perineal muscles.
- 3. Urogenital diaphragm.
- 4. Anatomical Perineum.
- 5. Pelvic diaphragm.
- 6. Pelvic organs, i.e., bladder, uterus, rectum.
- 7. Endopelvic fascia and ligamentous supports.
- 8. Peritoneum.

Perineum

The perineum is the anatomical region at the inferior end of the trunk between the thighs bounded above by the pelvic diaphragm. Deeply, it is limited in front by the pubic symphysis and the arcuate ligament, on each side by the inferior rami of the pubis and ischium, the ischial tuberosity, and the sacrotuberous ligament and behind by the sacrum and tip of the coccyx. On the surface it is bounded in front by the mons veneris, which rests upon the pubis, behind by the gluteal region (buttock) and at the sides by the femoral

region (thigh) (See Fig. 1). In occupying the T interval enclosed by the hip bones and the sacrum, fait contains all the structures situated within the



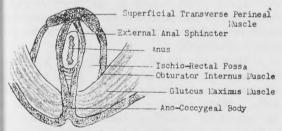
pelvic outlet. Upon its surface terminate the urogenital tract and the alimentary tract, in front of and behind, respectively, an arbitrary transverse line joining the ischial tuberosities. The perineum as a whole may be conveniently divided into an anterior urogenital triangle and a posterior than an arbitrary transpersion of the perineum as a whole may be conveniently divided into an anterior urogenital triangle and a posterior than a posteri

Anal triangle is bounded above by the pelvic diaphragm and below by skin. The apex is at the the coccyx, the base is a line drawn between the two in ischial tuberosities and the sides are made up by which the gluteus maximus muscle. The anal triangle of contains:

- 1. Anal canal is situated about 2.5 cms. in is front of the tip of the coccyx and forms the truncated end of the funnel shaped muscular and the fascial support, the pelvic diaphragm. The skin as surrounding the anal opening is pigmented, thrown into folds and contains the large circumanal sweat glands. To either side of the anal canal and the ladiaphragm upon which it terminates lies a space of termed the ischio-rectal fossa.
- 2. Ischiorectal fossae (Fig. II)—these are misnamed, lying not in relation to the rectum but to the anus and should be termed ischioanal fossae. They are prismatic in shape and two in number. The fossae are widest and deepest behind, narrowest and shallowest in front, being here encroached upon by the ascending pubic arch. The posterior boundary of the fossa is formed by the sacrotuberous ligament and the origin of the gluteus maximus, above the lower border of which it extends into a posterior recess. Anteriorly the ischiorectal fossa is bounded by the posterior free them argin of the urogenital diaphragm, above which the fossa sends a diverticulum anteriorly into the the urogenital triangle. The lateral vertical wall is It

formed by the ischium and the lower part of the obturator internus muscle covered on its medial aspect by the lower part of the obturator fascia. The medial wall is formed by the diaphragmatic fascial layer which covers the under surface of

FIG.II ISCHIO-RECTAL FOSSA



the levator ani and coccygeus muscles as well as the external sphincter of the anus and the anococcygeal body.

I. M. Thompson, Professor of Anatomy of the University of Manitoba, regards part of the levator ani muscle, covered inferiorly by the inferior fascia of the pelvic diaphragm, as the roof and not the medial wall of the fossa; the medial wall comprising the external sphincter of the anus and the ano-coccygeal body only. Most other authors regard the roof as the angular junction between the sloping medial wall and the vertical lateral wall.

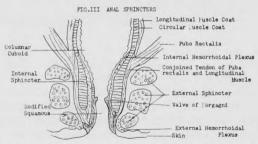
At the junction of the roof and the lateral wall the inferior fascia of the pelvic diaphragm, covering the inferior surface of the levator ani, fuses with the obturator fascia, often a little below the origin of the levator ani muscle from the obturator fascia thus forming a so-called "false roof" for the ischio-rectal fossa.

The superficial fascia over the posterior part of the perineum is remarkable for the considerable amount of fat in its meshes; in the form of two adipose pads, it fills the space of the fossae.

On the lateral wall of the fossa and above the lower margin of the ischial tuberosity, the fascia of the obturator internus muscle is elevated to form a canal (Alcock's) for the internal pudendal vessels and the pudendal nerve which are coursing toward the urogenital part of the perineum. Originating from them, near the tuberosity of the ischium, the inferior hemorrhoidal vessels and nerves pierce the fascial canal and pass medialward and forward through the fatty connective tissue pad of the fossa to the anal canal.

3. External anal sphincter (Fig. III)—The outer sphincter muscle is a subcutaneous group of muscle fibres which surrounds the margin of the anal canal. The inner fibres are separated from the nonstriated fibres of the internal sphincter, the intrinsic cylindrical muscle of the canal, by the levator ani muscle of the pelvic diaphragm. Its superficial fibres are subcutaneous in position.

The muscle is orbicular in form. From the posterior end of the anal collar, fibres are prolonged backward to the coccyx; when tendinous, the



posterior extension forms the ano-coccygeal ligament. The anterior margin is smoothly rounded and overlies the superficial transverse perineal muscle.

4. Anococcygeal Body (Fig. II)—This is a body of fibrous tissue situated between the anus and the coccyx. It consists of the posterior fibres of the external anal sphincter, a backward extension of the deep perineal muscles and the median stripe of the pubococcygeal part of the levator ani.

Urogenital triangle. The urogenital triangle is bounded in front by the pubic symphysis and the arcuate ligament, on each side by the inferior rami of the pubis and ischium and the ischial tuberosity, and posteriorly by a line drawn between the ischial tuberosities. Externally it contains the labia majora and commissures, the labia minora, the clitoris, the vestibule, the orifices of the urethra and vagina, and the hymen.

The urogenital triangle may be subdivided from below upwards into three compartments:

- 1. Superficial perineal pouch.
- 2. Deep perineal pouch.
- 3. Anterior diverticula of the ischiorectal fossa.

Superficial perineal pouch. The superficial perineal fascia is continuous with the superficial abdominal fascia which consists itself of two layers. The most superficial of these two is a fatty layer and on the lower portion of the anterior abdominal wall is called Camper's fascia. It is carried backward in front of the pubes to become continuous posteriorly with the adipose pad filling the ischiorectal fossa on each side of the anus, and laterally, with the outer fatty layers on the thighs.

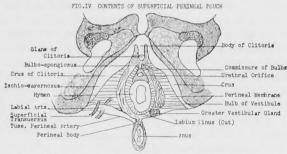
Where it covers the labia, fat becomes scarcer giving place to a thin layer of involuntary muscular fibres which represent those of the dartos tunic in the scrotum of the male.

The deep layer of the superficial abdominal fascia (Scarpa's fascia) is carried backwards into the perineum to become known as Colles fascia. It is a strong aponeurotic layer being divided in the midline by the cleft of the vestibule and ending behind at a transverse line joining the ischial tuberosities where it curves upward around the superficial transverse muscle to join the fascia of

the urogenital diaphragm. Laterally this dense membranous fascia ends sharply by becoming firmly attached to the ischiopubic rami and the ischial tuberosities.

Thus a definite pouch or compartment has been formed: the floor consisting of the deep layer of the superficial perineal fascia (Colles); the roof being the inferior fascia of the urogenital diaphragm; and the posterior boundary being formed by the deep layer of the superficial perineal fascia becoming continuous posteriorly with the urogenital diaphragm. The wouch is closed laterally by the attachment of the deep layer of the superficial perineal fascia to the margins of the bones at the pelvic outlet. Anteriorly the pouch is open in the sense that the contained space is continuous upwards onto the abdomen across the front of the pubic symphysis, with an areolar tissue interval situated between Scarpa's fascia and the deep fascia covering the muscles of the anterior abdominal wali.

The contents of the superficial perineal pouch are as follows: (Fig. IV)



- 1. Clitoris—composed of two corpora cavernosa united in front to form the body of the clitoris and diverging behind to be known as the crura.
- 2. Ischiocavernosus muscles two in number which cover the crura of the clitoris. They arise from the medial aspect of the ischial ramus close to the tuberosity; the fibres arise in sheaths and insert into the medial and inferior surfaces of the crus, extending as far forward as the body of the clitoris.
- 3. Bulbs of the vestibule—two oblong masses of erectile tissue, united anteriorly, their medial surfaces in contact with the wall of the vestibule at its point of junction with the vagina.
- 4. Bulbocavernous muscles—take origin from the perineal body, separate behind the vaginal orifice to pass forward closely covering the lateral surface of the vestibular bulb and converge toward the midline where they become slender fasciculi and are inserted into the vestibular bulb as far anteriorly as the dorsum of the body of the clitoris.
- 5. Superficial transverse perineal muscles lie along the base of the urogenital triangle. It arises

from the tuberosity of the ischium and run u medially to join its fellow of the opposite sid p at the perineal body where it is inserted. Pos to teriorly the superficial transverse perineal muscles lies directly against the external anal sphincter p anteriorly it almost reaches the posterior wall op the vagina. This muscle is important surgically since around its posterior border the pudendanerve and artery turn upward to reach the urogenital structures.

6. Bartholins Glands — or Greater Vestibula Glands are paired oblong bodies, 1 cm. in length situated immediately posterior to the vestibula bulbs. These actually are not situated right if the superficial pouch as usually described, bulie buried in connective tissue between the superficial and deep pouches. The long axis of the gland is transverse and the duct courses anter medially to open into the vestibule one on ead side of the fossa navicularis.

The glands and the adjacent vestibular bulbs together with the thin bulbocavernous muscle twhich cover them, are ensheathed by a rather thick musculocutaneous coat which is internal to the inferior perineal fascia.

- 7. Vessels and nerves which supply these structures and those which ultimately leave the pouch storeach the skin and subcutaneous tissue of the labia. These are the perineal nerves and perinear vessels (branches of the internal pudendal vessels)
- 8. Through the pouch in vertical direction is the median plane, pass the terminal portions of the urinary and the genital tract.

Perineal Body (Fig. V) (Central Tendinous Point—A muscular-tendinous point situated in the midline of the perineum anterior to the anus, at the posterior limit of the superficial perineal poud composed of the convergence of the musculatendinous fibres of the bulbo-spongiosus muscle the superficial and deep transverse perineated muscles and the external sphincter of the anus a well as somewhat less definite tissue lodged between the anal and vaginal canals.

The recto-vesical fascia (fascia of Denonvillier runs from the peritoneum to the perineal body In the embryo the peritoneum extends to the perineal body and this fascia is left as its remnar in the adult.

Most of the fibres of the so-called rectourethramuscle are inserted into the perineal body. The muscle consists of one or two bands of smoot muscle which arises from the anterior wall of the rectum and runs forward, few fibres reaching the urethra.

The pubococcygeal fibres of the levator ani aralso inserted into the perineal body.

Urogenital Diaphragm—Before one can discust the second or deep perineal pouch one needs

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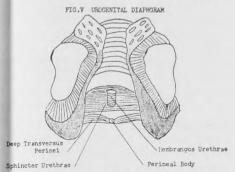
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run understand the anatomy of the urogenital diasid phragm. This is composed of two layers of deep Pos fascia enclosing a slit-like pouch containing the sel sphincter muscle surrounding the membranous eterpart of the urethra and the deep transverse 1 operineal muscle. (Fig. V). The lower or superall



ficial layer of fascia is known as the inferior fascia of the urogenital diaphragm or the perineal memlbs brane. In being interposed between the cavernous tissue and its musculature inferiorly, and the urethral sphincter superiorly, the fascia is at once the roof of the superficial and the floor of the deep perineal pouch. It lies in the same plane as the rue rami of the pelvis, its inferior surface facing ucl somewhat anteriorly. The lateral margins are the attached to the medial surfaces of the inferior rami of the ischium and the pubis, above the level of the attachment of the crura; the median portion of the base covers a coccygeal extension of the diaphragmatic musculature. The fascia is continuous with the deep layer of the superficial fascia and the superior fascia of the urogenital diaphragm; these continuities close the perineal pouches behind. The layers fuse in front to form a ligamentous band, the transverse ligament of the pelvis (transverse perineal ligament) which passes from one side of the pubic arch to the other. On either side it blends with the pubic arcuate ligament except in the centre where the dorsal vein of the clitoris, emerging from the superficial perineal compartment, passes upwards and backwards through an anal opening between the two ligaments to reach the pudendal venous plexus behind the pubic symphysis within the pelvic cavity. The inferior fascia is pierced in the median plane by the visceral tubes. On either side, the base of the fascial pouch is pierced by the internal pudendal vessels and the pudendal nerves and by branches of these to the erectile tissue of the bulb and crus.

The superior fascia of the urogenital diaphragm forms at once the roof of the deep perineal pouch and the floor of the anterior recess or extension of the ischiorectal fossa on either side of the midline. Anteriorly it forms the transverse perineal ligament in conjunction with the perineal membrane; at the sides it meets the obturator fascia;

behind it again is continuous with the inferior fascia of the urogenital diaphragm and therefore with the deep (Colles) layer of the superficial fascia. It is to be noted that this posterior border is free in its lateral aspect only; medially it fuses with the perineal body. Medially and above it joins the fascial covering on the under surface of the levator ani muscle.

The urogenital membrane therefore can now be understood to consist of these two fascial layers (inferior and superior fascia of the urogenital diaphragm) as well as the slit-like pouch which they enclose, i.e. the deep perineal pouch and its contents.

Deep Perineal Pouch—All that remains to be described here are the contents, the boundaries having been illustrated above. These consist of the sphincter muscle of the membranous urethra and the deep transverse perineal muscle. (Fig. V). It must also be noted that the deep perineal pouch is pierced by both the vagina and the urethra.

The sphincter muscle arises on each side from the inner surface of the ischiopubic ramus. As the fibres approach the midline a group passes anterior to the urethra, almost reaching the inferior margin of the pubic symphysis; those next behind become implanted into the urethra; a considerable number of fibres is similarly related to the vagina, while a post-vaginal group crosses transversely behind the vaginal canal.

The deep transverse perineal muscle is the arbitrarily separable posterior part of the musculature of the urogenital diaphragm which is situated deep to the superficial transverse perineal muscle. As commonly described it consists chiefly of the transverse fascicles mentioned above. The diaphragm, however, does not terminate posteriorly with the fibres which cross the perineum behind the vaginal orifice; a triangular prolongation passes backward, deep to the coccygeal extension of the external anal sphincter, surrounding the anal canal en route. The fibres of the two sides converge and attain a narrow ligamentous attachment to the tip of the coccyx. The fibres adjacent to the anal canal intermingle with the downward directed fibres of the levator ani. The outline of the urogenital diaphragm is then quadrangular not triangular and although it serves a sphincteric action it would appear that the chief function of the urogenital diaphragm would seem to be supportive for the pelvic organs. It might be noted here that the urogenital diaphragm is horizontal and serves the function of strengthening the pelvic diaphragm where it is weakened by the levator cleft.

Anterior recess of the ischiorectal fossa. In the urogenital half of the perineum, above the superior fascia of the urogenital diaphragm, on either side the fat-filled ischiorectal fossa extends forward

for a distance of about 5.5 cms. In shape the space resembles a triangular prism, the base of which adjoins the larger area in the anal canal of the perineum. The lateral boundary of the space is formed by the parietal fascia covering the obturator internus muscle. The superior boundary is the inferior fascia of the pelvic diaphgram which invests the under surface of the levator ani muscle; the inferior boundary is the fascia, likewise diaphragmatic, on the upper surface of the urethral sphincter.

Pelvic Diaphragm — The pelvic diaphragm forms the conical or funnel-shaped musculotendinous partition between the perineum below and the pelvic cavity above. It is made up of two pairs of muscle, the levator ani (very important) and the coccygei (relatively unimportant), invested on the perineal and the pelvic surfaces by a layer of fascia.

Inferior and superior fasciae of pelvic diaphragm. The inferior fascial layer covers the surface of the pelvic diaphragm. This layer is thin and ill-defined and scarcely dissectable as an anatomical unit.

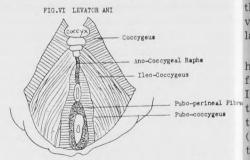
The superficial fascial layer covers the upper surface of the pelvic diaphragm. It arises from the line of origin of the levator ani muscle extending along the lateral pelvic wall in a tendinous arch from the pubic symphysis to the iliac spine (arcus tendineous) from where it sweeps downward and medialward to cover the muscles of the pelvic diaphragm. The superior fascial layer is continued upward as the endopelvic fascia of the rectum. At the lateral margins of the levator cleft, the superior fascia of the urogenital diaphragm and both fasciae of the pelvic diaphragm fuse and are continued superiorly as the endopelvic fascia covering the bladder, vagina and uterus.

Levator ani. Before discussing the various groups of fibres of this muscle in detail let us consider it as a whole.

This compound muscle arises from several structures and is inserted into several structures. There are two levators ani, a right and a left. Each presents a separate linear origin from the corresponding lateral wall of the pelvis, whence its fibres sweep medially to a common linear insertion into a series of structures in the median plane. The levator ani arises on each side from (1) a pony point in front, the back of the body of the pubis, (2) a bony point behind, the ischial spine, (3) a sheet of fascia between these bony points, the obturator fascia. Each levator ani is inserted into the following median structures, antero-posteriorly: (1) the perineal body, (2) the anal canal, (3) the upper part of the anococcygeal body, (4) the coccyx.

The most anterior fibres, the pubo-perineal fibres, are the most important. They arise to one

side of the median line from the back of the puber and are inserted in the median plane into the perineal body. Fig. VI. These obviously form f



free anteromedial border and it follows that there is a gap between these borders, which is called the levator cleft or gap. This cleft is bounded anteriorly by the back of the pubic bone and symphysis; posteriorly by the perineal body and laterally by the anterior fibres of the corresponding levator ani. This cleft is traversed by the urethra and vagina.

The pelvic diaphragm is not in a flat plane like the urogenital diaphragm, but is dome-shaped, only concave upwards. The pubo-perineal fibres rule almost horizontally backwards but the origin of each levator ani rises as it runs posteriorly. Consequently the pelvic diaphragm slopes downward and medially from origin to insertion and the slope increases as it passes backwards. This explains why the roof of the ischiorectal fossa slope downward from its lateral to its medial wall.

The nerve supply to the levator ani muscles is supplied partly by direct twigs from S2, 3 and and partly by the perineal branch of the pudendanerve. These muscles are associated with viscer which are innervated by the parasympathetis sacral outflow.

The levator ani is really a compound muscle consisting of two parts, the ileo-coccygeus and the pubo-coccygeus, and the separation is often indicated by a gap in the linear origin of the muscle

The pubo-coccygeus arises from the back of th body of the pubis and the adjoining part of th parietal pelvic fascia. Its anterior fibres run back ward and slightly downward across the latera aspect of urethra and vagina to be inserted int the perineal body. The succeeding fibres pas backwards across the lateral aspect of the urethra vagina and upper part of the anal canal aroun which they sweep to become continuous with th corresponding fibres of the opposite side. (Fig. VI They act as an additional sphincter for the ana canal and are often referred to as the pubo-rectali muscle. The posterior fibres of the pubo-coccygeu run backward and medially. Behind the ana canal they reach the ano-coccygeal body (media raphe) and the side of the coccyx, overlying the ileo-coccygeus which they assist in supporting th behorizontal part of the rectum. As the puboth coccygeus passes the viscera to reach the coccyx, firm bands of fibres are inserted into the urethra, the vagina and the anus, descending upon which viscus and interdigitating with the intrinsic musculature.

The ileo-coccygeus arises from the posterior half of the tendinous arch and, to a slight degree, from the pelvic surface of the spine of the ischium. Its fibres sweep backward and downward toward the midline, most of its fibres meeting those of the opposite side at the ano-coccygeal body (median raphe). (Fig. VI). The fibres of the posterior portion of the muscle however, are attached to the pelvic surface of the coccyx inferior to the backward extension of the pubo-coccygeus.

Coccygeus muscle—makes up the remainder of the pelvic diaphragm. Each coccygeus muscle is thin and quadrangular and is situated on the anterior surface of the sacro-spinous ligament. It takes origin from the spine of the ischium and expanding inserts into the lateral margin of the coccyx. Its thin fascial investment is continuous above with that of the piriformis and below with that of the levator ani muscle. (Fig. VI).

Endopelvic fascia and ligamentous supports. The fascia covering the pelvic surface of the obturator muscle is attached above to the periosteum along the arcuate line, where it is continuous with the iliac fascia covering the iliacus muscle in the pelvis major; in front it is attached to the superior ramus of the pubis, and below to the pubic arch, where it forms the fascial canal of Alcock, housing the pudendal vessels and nerves. Midway in its course the layer gives origin to the two layers of fascia of the pelvic diaphragm.

The fascial covering on the pelvic surface of the levatores ani and coccygei muscles is the superior fascia of the pelvic diaphragm; it is a very firm covering almost of aponeurotic character. The inferior fascia of the pelvic diaphragm in contrast is a thin indefinite layer.

The fascial covering of the muscles which form the floor of the pelvis is carried upward on the viscera as the latter pierce the pelvic diaphragm. The sheaths applied to the viscera, called the endopelvic fascia, are definite envelopes and may be readily freed from the intrinsic muscular coat of the organ and from the thin areolar layer which is situated just beneath the peritoneum. In the case of each organ the fascia bears a special relation to the ligamentous supports and to the vessels and nerves.

The rectum is surrounded by a thin and rather loose fascial envelope which forms an even less definite coat at a high level, as the rectum becomes continuous with the sigmoid colon.

The vesical part of the endopelvic fascia is prominent on the inferior and posterior surfaces of the urinary bladder, thin on the superior surface. At the line of meeting of the superior and lateral surfaces the layer is carried upward on the wall of the lesser pelvis to enclose the iliac vessels and to become continuous with the subserous areolar tissue of the greater pelvis. In this sheet of tissue are embedded, in front, the middle and lateral umbilical ligaments and the superior vesical arteries; behind in containing the ovarian vessels it contributes to the substance of the ovarian ligaments.

Posteriorly the vesical fascia is carried outwards upon the ureters.

The fascia covering of the vagina and uterus sweeps upward from the pelvic diaphragm; forming a strong sheath, it ascends to the point of junction of the cervix and body of the uterus. Over the body and fundus the layer is thin and not separately demonstrable. The fascial sheath is heaviest as it surrounds the cervix, in which area it is continuous with the fibrous tissue of the cardinal and ligaments. The uterine and vaginal vessels and nerves reach the organs by traversing the ligaments and the fascial sheaths into which the ligaments are anchored.

Each broad ligament is a thick mesentery-like fold directed from the lateral margin of the uterus to the lateral wall of the pelvis. Jointly they divide the pelvic cavity into an anterior portion containing the bladder, and a posterior, housing the rectum. The upper free border of each ligament is the longest of the four borders, and for its inner four-fifths is occupied by the fallopian tube; a shorter lateral part extends beyond the tube, from the fimbriated end to the wall, as the suspensory ligament of the ovary (infundibulo-pelvic ligament). The other three borders-medial, lateral and inferior-are fixed. The medial border is attached to the side of the uterus, where the layers diverge to surround the organ as its serous covering; the short lateral border is attached to the lateral wall of the pelvis, just in front of the hypogastric artery; the inferior border or base of the ligament is rounded; sloping downward and inward it follows the plane of the pelvic diaphragm to which it is attached, and ends medially on the upper portion of the vagina. At their inferior and lateral attachments the two layers pass in opposite directions becoming continuous with the general peritoneal cavity. The two layers of peritoneum which form the broad ligament enclose the extraperitoneal connective tissue, which, as it reaches the uterus, is termed the parametrium; between the two layers are also contained the following structures—the fallopian tube, the paroophoron and the epoophoron, fibres from the superficial layer of the uterine musculature, visceral branches of the nervous and vascular systems. The vessels, with the accompanying nerves, occupy the lower half of the broad ligament; the structures

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within this lower part of the ligament constitute the Cardinal or Transverse Cervical Ligament of Mackenrodt. Above the level of the broad ligament branch of the uterine vein, which demarcates the upper border of the Mackenrodt ligament, the connective tissue within the broad ligament is areolar: below it is more ligamentous.

The Cardinal or Transverse Cervical Ligaments (of Mackenrodt) comprising the contents of the bases of the broad ligaments, are the chief supports of the uterus and upper part of the vagina. They integrate on each side posteriorly with the corresponding uterosacral ligaments and are continuous inferiorly and medially with the cervicovaginal sheath of the endopelvic fascia. These supports, situated on either side of the cervix and upper vagina, are composed of connective tissue and muscle fibres together with the structures they encase. Each ligament spreads out lateralwards, fan-shaped, housing between its two layers the nerves of Frankenhausers plexus, the uterine artery and the massive parametrial veins. In fact, the blood vessels, especially the veins, make up the chief bulk of the ligament. The veins, together with their perivascular connective tissue and elastic fibres, constitute the essential factor in the remarkable pliability and great tensile strength of this ligament. Extending lateralward, the fanlike cellular tissues of the Mackenrodt ligament becomes inserted into the fascia overlying the obturator muscles and the muscles of the pelvic diaphragm and, more important, they also continue to follow the course of the major vessels as a supporting framework, becoming gradually attenuated into the perivascular fibrous tissue of the hypogastric and iliac vessels as they leave the pelvis.

Two secondary folds originate from the broad ligament, one from each surface: from the posterior extends a fold, the mesovarium, containing the ovary and the ovarian ligament; from the anterior passes a less prominent fold which contains the round ligament of the uterus. The part of the broad ligament below the origin of the mesovarium is called the mesometrium; the narrower portion above, between the ovary and the fallopian tube, is mesosalpinx.

The round ligaments are true ligamentous bands. They are enclosed between the serous layers of the broad ligaments and are attached medially to the upper angles of the uterus in front of and below the uterine tubes. Each round ligament is composed principally of smooth muscle fibres prolonged from the uterus, together with a certain amount of connective tissue and some small vessels and nerves. Occasionally in the adult the ligament is accompanied by a persistent tubular prolongation of the abdominal peritoneum, the canal of Nuck, which in exceptional cases may extend with the ligament into the labium. The "round ties ligaments are actually flattened bands at thype proximal (uterine) end; they become round mid-course, strand-like at their distal (labial) ter mination. The ligament first runs in a rathe prehorizontal plane extending outward and forwar sta from the anterolateral portion of the uterus t the wall of the pelvis; in the first part of its cours sm the ligament lies between the layers of the broad fac ligament; it then passes forward under the per att toneum, crossing the obliterated hypogastri con artery, the external iliac vessels and the psoa be major muscle; having thus ascended the latera the wall of the true pelvis, it crosses the pelvic brin to reach the abdominal inguinal ring, throug pa which it enters the inguinal canal. In passin the through the canal the ligament is accompanied b ser thin investments derived from the several inguina pe layers. Upon emerging through the subcutaneou pa inguinal ring the ligament forms the core of th th finger-like prolongation of the superficial falt pr process which occupies the labius majus. Withi ve this process it ends by breaking up int di fine fibrous strands.

The heavy connective tissue in the basal of inferior portion of each broad ligament is con th tinuous with two important supporting element ut of the uterus, namely, the uterosacral and cardina th ligaments and really forms a unit with them.

The uterosacral ligaments lie just beneath th recto-uterine folds of peritoneum, passing from the posterolateral aspect of the cervix to the anterior surface of the sacrum.

The ovary, in addition to the mesovarium (b) which it is attached to the posterior surface the broad ligament) possesses two other support ing structures, namely, the ovarian and th infundibulopelvic (suspensory) ligaments.

Each ovarian ligament is a rounded cord, con sisting of connective tissue and smooth muscle which lies enclosed between the layers of the broad ligament, where it may be seen through the peritoneum as it courses along the line separat ing the mesosalpinx from the mesovarium. extends from the uterine or lower extremity of the ovary to the lateral aspect of the uterus, when it is attached between the fallopian tube and the round ligament of the uterus.

Each infundibulopelvic ligament (the sus pensory ligament of the ovary) extends from the tubal extremity of the ovary to the lateral wall the pelvis, and is the lateral one-fifth of the broad ligament which is unoccupied by the fallopia tube. It is a fan-shaped band of fibrous an t muscular tissue over which the peritoneum elevated into a fold of triangular shape. It passe r upward from the ovary, crossing the externa t iliac vessels to become lost in the fascia and peritoneum covering the psoas major muscle. The v and tissue in the ligament forms a bed for the ovarian th vessels and nerves.

ter Pelvic Organs—These have been described in the previous lectures and the reader is referred to a standard text for their detailed description.

Peritoneum — a serous membrane which is smooth and glistening upon its internal free surroa face and roughened on its external surface for attachment to the subserous or extra peritoneal strict connective tissue, the tela subserosa, intervening between the peritoneum and the fascial lining of the abdominal parietes.

Whereas in the abdominal cavity proper the rin ug parietal peritoneum is reflected upon portions of sin the alimentary tract in the form of a complicated b series of supporting folds or mesenteries, in the ina pelvic division of the cavity it is for the most eou part merely carried over the upper surfaces of th the pelvic organs adapting itself to the inequalities att produced by them. By their presence it is prethis vented from descending to the level of the pelvic int diaphragm; it passes into the lesser pelvis from the anterior wall downward to the upper surface of the urinary bladder therefrom it is carried over on the uterus, and, extending lateralward on the ent uterine appendages, it reaches the lateral wall of the pelvis as the broad ligaments; from the posterior surface of the uterus and its ligaments the peritoneal layer is next reflected upon the front of the rectum where it attains the posterior abdominal wall.

In passing downward into the lesser pelvis to clothe the upper surface of the bladder, the peritoneum is elevated over the intra-abdominal cordlike remnant of the allantois (urachus or middle umbilical ligament) to form the middle umbilical fold, to each side of which is a lateral umbilical fold over the obliterated hypogastric artery. As the peritoneum descends from the lateral pelvic wall to the bladder, on each side of the organ a shallow depression is formed, termed the paravesical fossa. The peritoneum ascends over the bladder to cover the vesical surface of the body of the uterus, from which it is continued lateralwards as the anterior layer of the broad ligament; the shallow trough-like recess thus formed is the uterovesical pouch. The peritoneal layer next covers the fundus of the uterus, investing all of us the posterior uterus and a small upper segment h of the vaginal wall; from the uterus it is again extended lateralward to form the posterior layer of the broad ligament of the uterus. From the uterus and the ligament the peritoneum passes to the front of the rectum forming a deep sac, the pouch of Douglas. The peritoneum reaches the rectum at the junction of its lower and middle thirds; in the middle third it covers only the front, while in the upper third it clothes the sides as well; the layers of the two sides meet above to form a mesenteric support for the sigmoid colon. In partially investing the rectum the peritoneum forms paired pouches, the pararectal fossae, bounded on each side by a crescentic fold of peritoneum, the recto-uterine fold (fold of Douglas) which contains the uterosacral ligament.

In covering the pelvic organs, the degree of fixation of the peritoneum to the intrinsic tissues of the viscera depends upon the local texture and thickness of the subserous connective tissue. Thus, on the body of the uterus the peritoneum is closely adherent to the musculature above the level of the insertion of the round ligaments; it is also difficult to remove from the ligamentous supports of the uterus. It is easily removable anteriorly at the vesical reflection, also posteriorly below the level of insertion of the uterosacral ligaments; from the rectum and the posterior pelvic wall it comes away with ease.

Obturator Internus and Piriformis. A description of the pelvic floor would not be complete without a description of these two muscles which cover the walls of the pelvis.

The piriformis muscle is triangular in outline and lies flattened against the posterior wall of the pelvis. It originates by three or more processes, lateral to the second, third and fourth anterior sacral foramina and becoming narrow and more rotund, leaves the pelvis through the upper part of the greater sciatic foramen for insertion into the greater trochanter of the femur. The piriformis, together with the coccygeus muscle, clothes the space in the posterior bony wall of the pelvis intervening between the ischium and sacrum.

The obturator internus muscle clothes the side wall of the pelvis and ischiorectal fossa; like the piriformis it is flattened and fanshaped. It arises from the circumference of the obturator foramen from which its fibres converge toward the lesser sciatic foramen; becoming tendinous, it is joined by the two gemelli, and with them, is inserted into the greater trochanter of the femur.

The parietal pelvic fascia covers the pelvic surfaces of these muscles. Posteriorly, it covers the piriformis, and it sweeps forward as a continuous sheet on to the obturator internus so that it closes the greater sciatic notch from the pelvic aspect. Its upper attachment follows the upper border of the obturator internus muscle. Consequently in the posterior part of the pelvis it is attached to the iliac part of the arcuate line and is there continuous above with the psoas fascia, but as it is traced forward it sinks below the line. In front the parietal pelvic fascia is carried medially to cover the pelvic surface of the sphincter urethra, and its upper border, in this situation, reaches no higher than the lower margin of the symphysis pubis.

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The lower limit of the parietal pelvic fascia is attached posteriorly to the sacro-tuberous ligament and in front stretches across between the two ischial tuberosities blending with the perineal membrane.

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Orthopedics

Dr. John Brown Alexander Gibson, F.R.C.S. (Eng.)

When, in 1833, Syme was appointed to the Chair of Clinical Surgery in the University of Edinburgh, he found it necessary to curtail his services to the Hospital he had established at Minto House. The assistants who had been with him continued to act in rotation on the Hospital staff. The three men who kept things going until 1848 were Dr. John Brown, Dr. Peddie and Dr. Cornwall. Of these three, by far the most notable was Dr. John Brown. In many respects he was the antithesis of Syme, retiring where Syme was bold, a man of peace while Syme was ever a fighter; Syme was always conscious of his ability; Brown was distrustful of his own powers, yet there must be few in the English-speaking world who have not at least heard of "Rab and his Friends." The modest family doctor has achieved fame far beyond that of the renowned surgeon. The heroworshipper is more widely acclaimed than the hero.

The subject of this sketch was the son of a minister, and the great-grandson of John Brown of Haddington, author of the "Self-interpreting Bible." He was born in 1810 at Biggar, some 28 miles south of Edinburgh. From his father he received a thorough grounding in Latin and Greek, and when the family removed to Edinburgh, he was sent to the Royal High School where his studies were further directed to the classics. This classical bent is discernible in all his writings. In 1828, at the age of 18, he began the study of Medicine as pupil and apprentice to James Syme. "He was my master-my apprentice fee brought him his first carriage—a gig, and I got the first ride in it-and he was my friend." In 1833 he graduated M.D. and shortly afterwards commenced practice in Edinburgh. We have noted his association with Minto House. Apart from that, his private practice was never large; his interests were too widespread to make him a "successful" practitioner. His essays were published in 1858 under the title "Horae Subsecivae," (Hours of Leisure). A second series appeared in 1861, and a third series in 1882. He was a diffident writer,

persuaded that no one should publish "unless has something to say, and has done his best to sa it aright." The outstanding feature of his wor is a quiet humor, tinged, and sometimes-as "Rab"—suffused with pathos. He dealt also wit philosophical and artistic subjects, but these we not his best efforts. He was devoted to dogs; on of his most entertaining essays is on the subject of "Our Dogs." It commences as follows: "I wa bitten severely by a little dog when with m mother at Moffat Wells, being then three year of age, and I have remained 'bitten" ever since the matter of dogs." He then goes on to picture the canine worthies that he met, "making friend with them and speaking to them." Toby "we the most utterly shabby, vulgar, mean-looking co I ever beheld; in short a tyke." Wylie was the next, "an exquisite shepherd's dog, thin-flanke and handsome as a small greyhound." Then the came Wasp and Jock, Duchie and Dick, all wit interesting if widely different personalities.

In a "letter to Dr. John Cairns" he pays a ver beautiful tribute to his father. "Marjorie Fleming is the tale of a charming little friend of Sir Walt Scott to whom the great man read ballads at with whom he played childish games. "He pr tended to great difficulty, and she rebuked hi with most comical gravity, treating him as a child She died at the age of eight. One cannot rea this essay without unconditional surrender to the witchery of this precocious little lass.

Perhaps "Rab" is the best known of the piece that Brown wrote. As Robert Louis Stevenso said,

> "Ye stapped yer pen intae the ink, And there was Rab."

Rab was a dog belonging to James Noble t Howgate carrier. Brown first met him, "a hu mastiff, sauntering down the middle of the caus way as if with his hands in his pockets; he old, grey, brindled; as big as a little Highland bull. . . . Six years have passed. . . . I am a med cal student and clerk at the Minto House Hospit Rab I saw almost every week, and we had mu pleasant intimacy, His master I occasionally sa he used to call me "Maister John" but was lacor as any Spartan." One afternoon James Not

brought his wife Ailie to Minto House with "a trouble in her breast." . . . Next day, "my master, the surgeon (Syme) examined Ailie. There was 194 no doubt it must kill her and soon." The following day she was operated on; "it was necessarily slow, and chloroform was then unknown." James staved to nurse his wife with Rab as his constant companion. Infection set in and a few days later she died. James took her home and very shortly afterwards he too was dead. And what of Rab? "Weel, sir," the new carrier said, "I had to brain him. He lay in the treviss wi' the mare, and wadna come oot. I tempit him wi' kail and meat, but he wad tak naething, and keepit me frae feeding the beast, and he was ave gur-gurrin', and grup-gruppin' me by the legs. I was laith to mak' awa' wi' the auld dowg but, deed sir, I could dae naething else. . . . Fit end for Rab, quick and complete. His teeth and friends gone, why should he keep the peace and be civil?"

There is only one essayist with whom John Brown can be compared, Charles Lamb, the gentle Elia. In both there is the same discursive quality; the love of a well-turned phrase, or an apposite quotation. In both of them emotion is a prime ingredient, a wide and tolerant affection. Like Sir Walter Scott, Brown made free use of the pithy Scottish diction in limning the characters he describes. This may restrict the size of the audience to whom he appeals, but it brightens the picture for those who know and love the Scots tongue as a spoken medium.

There are several papers devoted to the life and work of medical men. One such was Adams of Banchory, a man comparable with John Hunter for his insatiable curiosity and unflagging industry. Another, William Henry Scott, who died at the age of 24, had such interest in historical and philological research that he "maintained an instructive correspondence with savants of many countries, and contributed to their periodicals in their own languages." Naturally enough, his master and life-long friend James Syme was one of them. A few extracts from this paper may be permitted.

"I was the first to see him when struck down by hemiplegia. . . . He said, 'John, this is the conclusion' and so in much it was to his, and our, and the world's sad cost. He submitted to his fate with manly fortitude, but he felt it to the uttermost. Struck down in his prime, full of rich power, abler than ever to do good to men; his soul surviving his brain, and looking on at its steady ruin during many sad months."

"He had that quality of primary minds of attaching permanently those he had relations to. His students never ceased to love him and return to him from all regions of the world. He was in this a solar man, and had his planets pacing faithfully round him."

"Of what he was to me—his patience, his affection, his trust, his wisdom—and still more, what he might have been to me had I made the most of him, it is not for me now to speak. He remains in my mind as one of the strongest, clearest, capablest, most valuable understandings; one of the warmest, truest hearts I have had the privilege and the responsibility of knowing. . . .He had his faults, who hasn't?—but they were superficial and therefore seen by all men. In his quarrels—and he was a man of war from his youth up till late manhood — he was almost always right in the matter, sometimes wrong in the manner, and the world we know often makes more of manner than of matter.

But the deeper you cut into him the richer, the sweeter, the stronger the substance. He was irritable at, and impatient of stupidity, and longwindedness, and pretence; and at falsehood, quackery, and trickery of all sorts, he went like a terrier at a rat."

It is perhaps inevitable that as time passes the past acquires a halo. Each of us tends to become "laudator temporis acti." Certain it is that times are changing; life today affords us many privileges unknown to our fathers, but it has also many more compulsions. We seem to be forced into travelling ever narrowing pathways. Let us see to it that the pathways do not become ruts.

More than two thousand years ago, a young Roman produced a comedy, "The Self-Tormentor." In the opening dialogue of this work there occurred the unforgettable line

'Homo sum; humani nihil a me alienum puto.'

Adopt this as a working rule, and you confer upon yourself the freedom of the universe; you open the door to wealth beyond the dreams of Croesus, wealth which neither moth nor rust can corrupt, and where Tax Inspectors may not break through.

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Case Reports

Two Cases of Tetanus A. J. Elliott, M.D.

Since tetanus is becoming a rather rare disease, it was thought that it might be of interest to report these two cases. They both occurred within one month.

Also, they illustrate that tetanus is always a danger, in even the most trivial of puncture wounds. They emphasize the importance of giving tetanus anti-toxin for all puncture wounds, especially where there is risk of contamination with tetanus spores as in a barnyard. (The reservoir of tetanus is in soil and excrement.)

They illustrate also, how successful treatment can be if started early enough. Both of these were quite early cases.

Case No. 1:

Mrs. H. M., age, 45, housewife.

On July 1st, 1954, the patient bumped her head against a nail protruding from a board in the barn. There was only a very small puncture, bleeding only a few drops. She passed it off as being trivial, and put a band-aid on it. On July 3rd, she noticed the wound was slightly swollen, red and a little painful. Later on that day she had a slight headache, felt feverish and had general malaise. These symptoms continued.

On July 4th she had difficulty opening her mouth to its full extent, her jaws seeming slightly stiff. On July 5th her neck was stiff, and she could open her mouth still less than before

open her mouth still less than before.

When seen in the office on July 5th she didn't appear ill, nor in any distress. Her temperature was 100 degrees. There was moderate but definite limitation in the movement of her lower jaw, and flexion of the neck. Flexion of the neck passively caused slight pain. In summary, the two findings, the stiffness of the jaw and of the neck were only moderate. She was hospitalized the same day.

She was given the following treatment. On July 5th 15,000 units of anti-toxin were administered intravenously, 40,000 units intramuscularly, Penicillin 600,000 units procaine penicillin, and 100,000 units crystalline penicillin every four hours, were also given. She had sedation in the form of phenobarbital.

On July 6th, 20,000 units of anti-toxin were given intravenously, and 40,000 units intramuscularly.

On July 7th, 20,000 units were given intramuscularly. Therefore in three days she received 95,000 units of anti-toxin and 75,000 within the first 48 hours

On July 6th, the day following admission, the stiffness in her neck was slightly less. On July 7th, the stiffness in her neck and jaw was much less.

On July 8th she was considered well enough to b h discharged.

Case No. 2:

Mrs. L. T., age 40, housewife.

On July 21st, 1954, the patient ran a nail int the calf of her left leg, the nail being in a box in the hayloft.

On July 23rd she felt apprehensive ("jittery" She had a frontal headache, and her jaws wer stiff.

Examination on July 23rd revealed a somewhall tense woman who seemed nervous. Her temperade ture was 99 degrees, her pulse 90. She could ope her mouth only about half the normal extent. He eneck would not flex fully, and pain was cause when passive flexation was tried. Her deep tendon reflexes were considered to be hyperactive. Her white blood count was 9,000. She was considered to have tetanus, and immediately admitted to hospital.

On July 23rd, the day of admission, she way given 20,000 units of anti-toxin intravenously and 20,000 units intramuscularly. On July 24th she was given another 40,000 units intramuscularly. Also she was given 500,000 units of crystalline pen cillin on the day of admission and 300,000 units of procaine penicillin twice daily, on succeeding days. She received 3 grains of phenobarbital daily.

On the second day of admission the stiffness in the jaws and neck was slightly greater, but on succeeding days it began to subside. Slight local spasm in the the area of the wound was evident.

She was discharged on July 29th, six days after admission. By this time the spasm in her neck an jaw was absent. However, she had a frontal head ache for some days after.

Discussion:

One so often gives a prophylactic dose of ant toxin, going to the trouble of doing a preliminar sensitivity test, and never seeing a case of tetanuthat one might get careless and omit the practis occasionally. However, these two cases of a supposedly rare disease, occurring within the space one month shows that one cannot relent with the anti-toxin. Neither had previous immunization and neither appeared to receive passive immunization at the time of their injury. Perhaps this latter point would indicate that the public need more education on the danger of tetanus.

As was stated, these cases also illustrate ho successful treatment can be if started early enough In contrast, it has been found by many that result in a well-established case with convulsions, are often poor. The reason for this is believed to be that the toxin, when it reaches the central nervol system is altered, and fixed there, so that it canno longer be neutralized by anti-toxin adminitered. If a lethal amount of toxin reaches the central nervous system before adequate amount of anti-toxin are given, the process will be irreversible. Both these were quite early cases. Neither

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to b had reached the stage of convulsions. Therefore, one might guess that relatively little toxin had become concentrated in the central nervous system, and fixed there. In any regard the response int to treatment was quite gratifying.

In our population, we have two groups who have received immunization against tetanus. These ery" are the children, and the veterans of the Second wer World War. Otherwise there are very few who have received tetanus toxoid. With continued imwha munization of children, tetanus will remain a disease of adults only, particularly of older people. pera Prophylactic serum injections will continue to ope exert some control, but it must always be kept in mind that half of the cases of tetanus arise with ten no conspicuous injury to indicate injection of etive serum.1

Thanks to active immunization of service-men. con the U.S. Army Medical Service had to deal with itte only twelve cases of tetanus out of over 2,700,000 hospital admissions for wounds and injuries in World War Two. Of these men, only four had been an sh in properly immunized, and of the latter only one died. arly

The question that arises is how long after receiving immunization, does it last, In a study carried out at Johns Hopkins Hospital,2 of 74 whose immunization had taken place between five and eleven years previously only 6 had less than .01 unit anti-toxin per ml., and 45 had over .1 unit per ml., a level generally considered to be effective. Of 73 who had a booster dose within five years all but 9 had adequate serum levels. It had been concluded, therefore, that a satisfactory level of immunity could be achieved by giving booster doses at five-year intervals.

It has also been recommended that immunized persons treated for injuries should receive tetanus toxoid alone as a prophylaxis. However, it would seem wise, if there was any doubt as to their having received immunization, to also give them prophylactic anti-toxin.

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Abstract

ss i Cardiac arrest during anaesthesia and surgery: t O West, J. P., Ann. of Surgery.: 140:623, Oct., 1954.

loca The author analyses 30 cases of cardiac arrest nt. that occurred in a total of 35,000 cases between 1947 and 1953. The incidence, therefore, was 1: 1,200. The etiology of cardiac arrest has been variously ascribed to hypoxia, vagal reflexes, hypercapnea, toxicity and/or overdosage anaesthetic agents.

Of the 30 cases 7 occurred in children and 23 in adults. Perhaps it is significant that none of the children with cardiac arrest had received any premedication prior to the induction of anaesthesia. Except for one case, a patent ductus arteriosus repair, all the children were thought to be in good health and were undergoing relatively minor surgical procedures. All of the adults had received some form of premedication. Fourteen were thought to be good average risks, and only nine were considered poor risks because of malignancies in the advanced state, or on account of arteriosclerosis.

Two of the children and nineteen of the adults ar exhibited cyanosis prior to the onset of cardiac arrest. In the other cases it is not known whether cyanosis had been present or not. However, 21 out of 30 cases does suggest a relationship between hypoxia and cardiac arrest.

It is difficult to establish a relationship between cardiac arrest and the type of anaesthetic agent as several agents were used with each case. The authors suggest that, since pentathol was used in 23 of the cases of cardiac arrest, there might be some incrimination of this agent. However, there are no figures on the overall administration of pentathol.

There is no clinical discussion of these cases nor is there any discussion of the treatment used in attempt to resuscitate these patients. thirty cases only two survived.

In the discussion that followed this article an interesting comment is made by Dr. Potts of Chicago to the effect that one can either poison tissue cells, or deprive it of its food; the poisons are the anaesthetic agents used and carbon dioxide and the food, of course, is oxygen.

M. Minuck, M.D.

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Children's Hospital, Winnipeg

Ward Rounds Edited by Wallace Grant, M.D.

Clinical Pathological Conference November 14th, 1954

"Cytomegalic Inclusion Disease"

Case presented by Dr. H. Medovy

(B.C. C.H. No. 51-3664)

This male child was born at the Maternity Pavilion of the Winnipeg General Hospital on May 4th, 1951. His birth weight was 4 lbs, 10 oz., but he was only seven days premature. The mother had something that she called "influenza" during the seventh month of pregnancy, and the small size of this child born so close to term may be in some way related to this illness of the mother. We have no information about the placenta. The delivery was normal but I recall seeing the baby after birth and his condition was poor. He was small and immature, and was of a "muddy colour" which in retrospect I think must have been jaundice. The liver and spleen were both enlarged and the head circumference was 111/2 or 12 inches. X-ray of the skull was taken and revealed the calcification which will later be demonstrated by Dr. Childe. Because of the calcification there was further study in an attempt to determine whether or not the child had toxoplasmosis. This was done by the method then in use which was not too satisfactory but Dr. Lansdowne did not believe the baby had toxoplasmosis. Dr. Elvin was also asked to examine the fundi, this he did twice while the baby was still in the newborn nursery and he was satisfied that there was no chorioretinitis although there were some peculiar small cysts present, which were apparently congenital. Because of the enlarged liver and spleen, the baby's poor condition, and the darkness of the skin I also considered the possibility of galactosemia but the urine was negative for reducing substances and was also negative on microscopic examination. There was no evidence of erythroblastosis and the Wassermans of both father and mother were negative. During most of the three or four weeks in hospital he remained in an incubator.

The baby went home at the end of a month or so, still in very poor shape and with an apparently poor outlook as far as mental development was concerned. At about three or four months he began to have convulsive seizures, more frequent with respiratory infections which led to his admission to Children's Hospital on two occasions. The final admission was on September 23rd at four and a half months of age for respiratory infection and convulsions. The urine was examined here shortly before death and showed considerable albumin and a greater than usual number of epithelial cells.



However, at that time we were not too aware of the possible significance of these urinary findings. At the time of that admission there was some evidence of atopic eczema, the head was still very small (13") and poorly supported on the trunk. This then is the essence of the clinical history and Dr. Childe will now show the X-rays.

Dr. Childe: The first films were made in May of 1951, shortly after birth and you can see even from a distance that the baby was strikingly microcephalic. Further skull films were taken in September of 1951, shortly before the baby died, and the head had grown to some extent but was still microcephalic although the sutures had not closed. On both occasions there was very extensive intracranial calcification. In my ignorance at the time I was puzzled and thought of toxoplasma. The calcification is distributed rather widely through both hemispheres and when this is examined stereoscopically it becomes apparent that most of the calcification follows the shape of extremely dilated ventricles. In other words, it appears to be subependymal. This dilatation of the ventricles is of course, what you might expect in an infant who is that markedly microcephalic, due to lack of brain growth, which is also reflected in the size of the ventricles. We recalled a similar picture presented by an infant born in 1945 in whom no definite diagnosis was ever made but which appears now likely to have been due to the same thing. As for this infant we remained in our quandary for over three years before coming to the explanation quite recently.

Dr. Hoogstraten: The findings as recorded in the autopsy protocol are, in essence, as follows: Autopsy performed by Dr. C. Sorenson, "Body was that of a well nourished white male child measuring 63 cm. from crown to heel, the head measuring 33½ cm., the chest 40 cm., and the abdomen 37 cm. The forehead sloped back towards the vertex. The occipital region was flat, giving the head a pointed look. The face was of normal size in contrast with the small head. There were two lower incisors. The second and the third toes of the right foot were partially fused. The penis was small and there was a marked hypospadias. There was no palpable

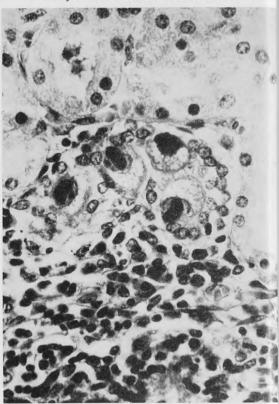
edema or lymphadenopathy. The larvnx was patent but there was a noticeable degree of injection of the mucous membrane. The lower trachea and both main bronchi were inflamed, and thick, grevish muco-purulent material occluded the main bronchi. The right lung weighed 49 grams, the left 38 grams, and the right lower lobe, and to a lesser extent, the left lower lobe were dark red. In the substance of the lung definite firm areas could be felt. On cut surface no areas of consolidation were seen, and no exudate was present. The smaller ramifications of the bronchi were patent and appeared normal. Both the right and left pulmonary arteries appeared larger than normal and the branches in the lung parenchyma were also more prominent than usual. The liver and spleen were of normal size and appearance. Each kidney weighed 32 grams, and both were grossly normal."

"The unusual findings in the head were as follows: The anterior fontanelle was closed but the sagittal, lambdoidal and coronal sutures were not fused. The bones of the skull seemed thick considering the overall size of the skull, the middle and posterior fossae were deep, the clivus was almost vertical, and the posterior fossae had a conical shape. The cerebral convolutions were poorly developed and only the major gyri could be identified. The occipital lobes appeared short and did not cover the cerebellum. Both lateral ventricles were dilated but the third and fourth ventricles appeared of normal size. The ependyma was pale, smooth and glistening, and beneath the ependyma was a thin, 1 mm. layer of greyish, translucent tissue separating the ependyma from a thin remaining layer of white matter. The white matter measured one to two millimeters and the grey one half to one centimeter in thickness. Scattered under the ependyma especially in the left inferior horn of the lateral ventricle were regular roughened greyish-white areas of calcareous material. Flecks of similar material were scattered throughout the cortex, especially at the junction of grey and white matter. Calcareous material was also seen in the putamen and caudate nucleus. The brain weighed 275 grams. No gross lesion was seen elsewhere in the brain."

Microscopically in sections through all areas of the brain I could find no inflammatory lesions. There was perhaps some subependymal gliosis but there were no inclusions within nuclei, nor abnormally large cells or nuclei.

Although the kidneys were normal grossly, they were abnormal microscopically. Scattered throughout the kidney cortex were foci of inflammation consisting of an infiltrate of lymphocytes and plasma cells and a few histiocytes in the interstitial tissue. On further study of the section one can find tubules which contain extremely large giant cells with extremely large basophilic inclusions within the nucleus. Surrounding the inclusion is a "halo" of somewhat vacuolated tissue. These in-

clusions were situated only within the distal convoluted tubules. The inflammatory infiltrate was almost always around the distal tubules.



The inclusions are within the nucleus and it i difficult to see the nuclear membrane. Some of the cells contain not only the large inclusions but also a single and smaller one as well. Definite search was made for similar inclusions in other organs of the body but none were found in the mucounglands of the trachea, or bronchi, thymus, pancreas liver, spleen, brain nor is there any histological evidence of any past lesion in the liver or brain.

At this point I would like to make note of the fact, before the clinicians do, that in this case the diagnosis of cytomegalic inclusion disease was made, although after death, by the radiologist and the pediatrician who then asked the pathologis for confirmation.

plasmosis was considered as a possible cause of the overall picture, and this condition, or syphilis of erythroblastosis are the three conditions which have to be eliminated before arriving at a diagnosis of cytomegalic inclusion disease. Actually one should also consider galactosemia when a new born has enlarged liver and spleen and shows some jaundice in the first twenty-four hours. However, this one was left "undiagnosed — cerebra calcification unspecified" until two or three week ago when Dr. Childe 'phoned me one morning to say that he had been at a meeting in Washington where films of the skull had been demonstrated

showing calcification — and these from children on whom a diagnosis of cytomegalic inclusion disease had finally been made. With this fresh in his mind he reviewed the films from this patient. the original history was reviewed and Dr. Hoogstraten reviewed the findings at postmortem and the microscopic sections to confirm, as he has shown you, our impression that this was an example of the condition. There are two further interesting clinical points I would like to make. The first is that one wonders if this condition, which is supposed to be the result of virus infection, might have been transmitted through the placenta during the period when the mother had the so-called "influenza" at seven months, and whether because of this intra-uterine transmission of infection the baby was born with calcification already apparent intracranially, and with brain growth already arrested. And secondly, that complete urinalysis is an important part of the investigation leading to the diagnosis of this condition during life. Mercer in Cleveland has demonstrated that the sediment from centrifuged urine, smeared and stained just as material from the cervix is prepared for early diagnosis of cervical carcinoma, (Papanicolaou Method), shows the presence of large giant cells with inclusion bodies. Using this method it is possible to diagnose the condition in life. A case reported by Mercer presents a picture almost identical with ours — fullterm pregnancy, small immature baby, jaundice, enlarged liver and spleen and intracranial calcification.

Would you like to comment on this case, Dr. Chown?

Dr. B. Chown: I don't know any more about it than any of the rest of you, I have never seen one before, but I would agree that the mother's illness during pregnancy is very likely to be related to the disease found in the infant. Did the mother of Mercer's patient have a similar history of illness late in pregnancy? Obviously the placental passage occurred some time before birth with this much calcification present at the time of birth.

Dr. Childe: I think this is probably not as rare as we think, because when this slide was shown at Washington, Dr. Peterson of Minneapolis was sitting with me and he recalled a couple of cases similar to it which he had been unable to diagnose, and so did I. I don't know if they are all microcephalic. I understand there are only four reported cases so far with these intracranial findings.

Dr. Medovy: I am thinking of another patient we hope to review, a patient of Dr. S. A. Boyd's who died at four or five days with what we thought was leukemia, because it had a remarkable leukemoid reaction in the blood, with hemorrhages and severe anemia, enlarged spleen and liver. At autopsy this was considered to be due to pneumonia. Many of the cases of cytomegalic inclusion disease in very young infants are reported to have a similar picture, with hemorrhage in the skin,

severe anemia, enlarged liver and spleen and leukemoid reaction in the blood. This is one reason why erythroblastosis fetalis is also considered as a possibility.

Dr. Briggs: Dr. Childe, would you tell us, as a matter of interest just what are the common causes of cerebral calcification and the obvious differentiations during the first year of life?

Dr. Childe: The best known is toxoplasmosis which apparently is the most common. Theoretically you could get almost any kind of calcification such as you find in older people. The Sturge-Weber syndrome may show calcification during the first year of life, but often doesn't. There haven't been too many definite conditions known which will produce this diffuse type of calcification so early in life.

Dr. Chown: Do these other conditions show calcification in the subependymal area too?

Dr. Childe: That was the outstanding thing about the picture. The slide demonstrated at the Washington meeting showed it even more plainly than ours. The opacification due to calcium outlined the whole ventricular system.

Dr. Briggs: In the newborn, when the brain is examined do you find any icteric change around these areas of inclusion, bodies? In kernicterus there is staining around the basal nuclei, but I understand that in cytomegalic inclusion disease it is more marked in the cortices or the junction of the grey and white matter.

Dr. Hoogstraten: Not that I know of. This is the first case I have ever seen. I could find no inclusions in the brain tissue examined. I might point out further that about 10% of routine autopsies in the newborn will show the same cytological appearance in the salivary glands. For some time we were looking for them, and routinely examined salivary glands over a period of a few months, and then stopped. This is something that we will begin to do again. Another thing one might mention is that it is also stated that one may find, in approximately one per cent of autopsies in children, this sort of cytomegalic inclusion as an incidental finding in the kidney.

Dr. Medovy: Certainly this is a most interesting condition and I have no doubt that once it becomes known it will be diagnosed more frequently. It is important to keep in mind the possibility of recognizing it in life by using the examination of centrifuged urine sediment, and this could be done on the same urine that is examined for reducing substances which are found in galactosemia.

Dr. Hoogstraten: We have already had several requests to look for these cells in the urine and I expect we will be getting more. It would have to be a very fresh specimen and immediately centrifuged, then fix the sediment with Schaudin's solution and stain it with hematoxylin-eosin. In

one report I have seen regarding the cytology of the smear of the urine sediment I was certainly not impressed with the illustration of the epithelial cells having intranuclear inclusions. I suspect from reading that report that the diagnosis was made on clinical grounds first, and it was for that reason they looked in the urine and found these epithelial cells which are always present in urine anyway, stained them and convinced themselves that they saw intranuclear inclusions. I think that the diagnosis can be made actually on clinical grounds, rather than on the urinary findings.

Comments on Generalized Cytomegalic Inclusion Disease (H. Medovy)

These few notes are appended because this condition has so far not been mentioned except in recent text books, and references in pediatric literature are few in number. Some sixty-five cases have been reported in the literature, nearly all infants.

Cytomegalic Inclusion disease of infancy may be defined as an acute or subacute febrile illness of presumed viral origin with symptoms and clinical findings depending on the extent of involvement of various organs. The diagnosis in most cases has been made by the pathologist who finds the characteristic nuclear and cytoplasmic inclusions in various organs. The disease may be found in the stillborn infant.

The presence of inclusion bodies identifies the condition as a disease of probable virus origin. The nature of the virus is undetermined and it has not been possible up to now to transmit the disease to animals.

The occurrence of inclusion bodies in stillborn infants suggests that it is acquired from the mother in utero. In our own case described above it seems reasonable to assume that the "Influenza" infection suffered by the mother in her seventh gestational month was responsible for severe injury to the fetus in utero with the result that a small, microcephalic, brain-damaged infant was born. The

pathological findings simply confirmed the impression that the maternal infection so transmitted was viral in nature.

The virus probably is latent in many adults and we know that in 10% of all autopsies on infants identical inclusion bodies are found in the salivary glands and have no bearing on the cause of death in these cases.

As in the case described above we are concerned with the generalized and fatal form of the disease Involvement of the kidney, lung, liver or brain is found in these cases. The diagnosis may be suspected in any infant showing jaundice, enlarged liver and spleen, bleeding tendencies, or respiratory distress. It is understandable that the clinical picture may be confused with erythroblastosis syphilis and toxoplasmosis. The occurrence of calcification in the brain as shown radiologically in this case and also reported in a few cases in the literature makes it evident that toxoplasmosis is not the only condition which produces these changes in the brain. In our own case and in cases reported by Wyatt and by Mercer, the calcification involved the subependymal tissue of the lateral ventricles.

When virus infection is severe enough to cause generalized cytomegalic inclusion disease the result is always death in utero or within a few months of birth. The changes in the liver, kidneys and brain are of an irreversible type so that treatment except for the eventual development of prophylactic measures against virus disease seems at present out of the question.

In 1950 Wyatt suggested that this disease could be diagnosed in life by examining the cellular sediment of the urine in a suspected case because of the frequent massive desquamation of inclusion bearing cells into the renal tubules. Mercer in 1953 confirmed the value of this test.

References

Farber, S., and Wolbach, S. B., Am. J. Path., 8: 123, 1932. Wyatt, J. P., et al, Journal of Pediatrics, 36: 271, 1950. Mercer et al., Ped., Vol. 11, p. 502, 1953. Fetterman, Am. J. Clin. Path., Vol. 22, p. 424, 1952.

Editorial

Guest Editorial by Ross Mitchell, M.D.

Early Medical Journals in Manitoba

Given a frontier community with a university and a medical school, it will not be long before a medical journal is published. So it was in Manitoba. Created a province in 1870, its people established a university seven years later and Manitoba Medical College in 1883. The sale of Ruperts Land to Canada opened a vast new region and the coming of a railway to Winnipeg brought a great rush of settlers to the new province. Among the newcomers were medical men, young, enterprising, and above the average in professional ability. Some had held teaching positions elsewhere and all were imbued with hope and optimism.

In 1887 appeared Vol. 1, No. 1, of the Manitoba Northwest and British Columbia Lancet. journal had a short and checkered career. The first two volumes appeared under that name and the next three volumes under the name Northern Lancet (1889 - April, 1892). It was suspended from May, 1892, to April, 1897, then appeared under the title Manitoba and West Canada Lancet. The sixth and final volume ended in 1899. The only complete file is in the Armed Forces (formerly Surgeon General's) Library at Washington, D.C. The one copy in the Manitoba Medical Library, Vol. 2, No. 7, of February, 1889, was presented by the late Dr. A. N. MacLeod, one time Registrar of the Faculty of Medicine, University of Manitoba. Incomplete sets may be found in the Lane Medical Library, San Francisco; Library of Parliament, Ottawa; Academy of Medicine, Toronto; John Crerar Library, Chicago; Medical Society of King's County, Brooklyn; New York Academy of Medicine, and the College of Physicians Library, Philadelphia.

The name of the editor of the Manitoba is not revealed in the one copy in our library. It may have been Dr. Nevin Agnew who before coming to Winnipeg had taught the Institutes of Medicine in Toronto University. In our copy there is a full-page advertisement of the Manitoba Medical College with a list of the faculty. An article by W. Osler, M.D., reprinted from the Boston Medical Journal is on Arsenic in Puerperal Anaemia, a subject which had particular interest for Osler. The editorial dealt with the proposed Reformatory and Home for Incurables. We presume that this refers to the present institutions at Portage la Prairie. The editor states that the Greenway Government had included in its estimates \$75,000 for the construction of the building. There were advertisements of the Queen's Hotel, then situated on the site of the present Bank of Toronto, the new Douglass, now the Leland, the Clarendon Hotel (the old building five storeys high) and the Whelan House on Main Street near the C.P.R. Station. W. F. White advertised Indian curios and buffalo horns.

Reprinted in this issue from the Nursing Record is an article on Amateur Nurses from which we quote: "The present popularity of nursing is causing many ladies to enter hospitals as paying probationers." From the article one concludes that their services were not always welcome.

Next came four volumes of Transactions of the Winnipeg Medico-Chirurgical Society (1904-5. 1906-7, 1907-8 and 1908-9). It has been impossible to find the date of the founding of this society but presumably it was soon after the establishment of the Medical School in 1883. In 1904 the retiring president, Dr. J. A. McArthur, suggested that an annual report be prepared which would contain papers read before the Society. An Archives Committee was appointed consisting of Thomas Beath, C. Wollard and C. H. Vrooman. The four volumes contain the transactions of the Society up to the middle of the year 1909. No hint is given in the fourth volume that there would be no further issues. Why there were none may only be inferred.

At the turn of the century a number of doctors came to Winnipeg from eastern Canada and the British Isles. They were well trained and enterprising but they found that teaching positions in the college and hospitals were already filled. The Boer War, recently ended, had popularized the terms "Outlanders" and this came to be applied to the newcomers. In 1907 they formed the Winnipeg Clinical Society at which patients were presented for examination and case reports were discussed. It was a good method of teaching and the meetings of the Clinical Society were well attended. A Free Dispensary was also set up but it had a short life. The Clinical Society included such able men as Charles Hunter, J. E. Lehmann, H. P. H. Galloway, R. F. Rorke, Hans Herschmann, C. T. Sharpe, F. W. E. Burnham, F. A. Young, J. G. Munroe, E. Richardson, J. T. Whyte, T. M. Milroy and W. R. Nichols.

After a few years the two societies merged to form, in 1913, the Winnipeg Medical Society which continues to this day. The first President of the new Society was J. R. Jones, the second W. Harvey Smith.

Coincidental with the new leaven in the Winnipeg Medical group there appeared "The Western

Medical Journal" in January, 1907. The first article came from no less a person than William Osler, Regius Professor of Medicine at Oxford. With characteristic graciousness he wrote a special "Note on the Use of a Medical Journal," at the request of the editor. The second article was also specially written for the Journal by a former resident of Winnipeg who had moved to Chicago, Dr. A. H. Ferguson. He discussed the various measures for the radical cure of inguinal hernia and described his own operation.

In the first issue the name of the editor did not appear but was given in the second as George Osborne Hughes, a dermatologist. The original subscription was \$1.00 per year for twelve monthly issues, but in the second year it was raised to \$2.00. Dr. Hughes had correspondents in the other western provinces and he endeavored to make the journal representative of western Canada medicine. He pleaded in his editorials for Dominion reciprocity of license and for municipal hospitals. On May 11, 1919, he fell a victim of typhoid fever, the scourge of those early years.

The Western Canada Medical Journal ceased publication in 1915. The probable reason for its termination were the first World War and the ill health of the editor. A complete file of the Journal may be seen in the Manitoba Medical Library and an anonymous reviewer (Dr. C. E. Corrigan?) presented his observations in the August-September, October and December, 1952, numbers of the Manitoba Medical Review (32, 455, 533 and 647). The review may be read with profit.

The Manitoba Medical Association Bulletin, designed to give information on the proceedings of the Association in particular, and on medical affairs in general, first appeared in July, 1921. The man responsible for its publication was T. Glen Hamilton, then Honorary Secretary of the Association and very active in public affairs. The other officers of the Association in that year were: Robert D. Fletcher, President; L. J. Carter (Brandon), 1st Vice-President; W. A. Gardner, 2nd Vice-President; S. J. S. Peirce (Brandon), Treasurer. The executive committee was: J. N. Andrew (Minnedosa), W. G. Campbell, George Clingan (Virden), J. E. Coulter, J. R. Davidson, J. P. Howden (Norwood), D. H. McCalman, William Rogers, D. G. Ross (Selkirk), G. D. Shortreed (Grandview), D. A. Stewart (Ninette), C. E. Sugden, Thomas Turnbull, R. Waugh (Carberry).

The Bulletin at first of vest-pocket size, has undergone enlargement on at least three occasions. In 1934 it was renamed the Manitoba Medical Association Review and in 1939 the Manitoba Medical Review. The only complete file is in the editorial office of the Review at 604 Medical Arts Building. The Medical Library file lacks only No. 40 (October, 1924) and this issue is to be reproduced by photostat.

We make this plea: that before destroying outhrowing away old medical journals or record and our readers should consider whether they may by of historical interest and, if so, that they bring one send them to the Manitoba Medical Library for appraisal.



The Business Manager — J. G. Whitley

In a guest editorial, Dr. Ross Mitchell has give us an account of early medical journals in Man toba. He has referred to the first issue of the Manitoba Medical Association Bulletin which are peared in July, 1921, and of the development from the vest-pocket size to the form in which the Manitob Medical Review now appears. It is fitting that we should pay tribute to those who have served in the role of Editor and to recognize the contribution of one who has "come of age" in his capacity as Business Manager of the publication. Repreduced herewith is a minute of the Executive Committee of the Association for February 8, 1934.

"The Secretary read extract from the minute of the last special meeting of the Executive, held December 5th, 1933, regarding suggestions for obtaining new prices on printing the Review, an arrangements regarding advertising.

"Dr. C. W. MacCharles advised the meeting that his committee had been negotiating with Mr. J. G. Whitley to take over the advertising the Review on a basis of twenty-five (25) per cer of the new paid business, and an addition twenty-five (25) per cent of the net profits over and above the total cost of the expenses. There had been a suggested change in the size of the publication, which is more suitable for advertising purposes, the new size to cost approximately fit dollars (\$5.00) per page. So far, no formal agree ment had been drawn up with Mr. Whitley, an the matter rests with the Executive for approva Dr. MacCharles suggested that, if the present arrangement did not work out satisfactorily, w should discontinue the publication altogether, it had been simply a millstone of expense to the Association. Following discussion, it was move by Dr. F. A. Benner, seconded by Dr. H. O. M Diarmid:

THAT the Review continue to be published that the new plan be adopted and the propose arrangements with Mr. J. G. Whitley accepted, and that Dr. C. W. MacCharles and his committee to congratulated on the work they have don Carried."

(The above arrangement was revised in three months and has undergone other alterations).

Those who have followed the growth of the Review during the intervening years are away that the success achieved has been due to the

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g o untiring efforts of Gordon Whitley who completed ord his first issue in January, 1934, and who, in y b January, 1955, begins his twenty-second volume. The members of the Association appreciate the few splendid manner in which the work has been carried out behind the scenes, and with an eye to the future the greeting will be "Happy New Year."

M. T. M.

Manitoba's Medical Men XII. Call System

There has been considerable criticism about the calling doctors on the public address system while the public at they are attending games or the races or other through the public gatherings. In order to save doctors

embarrassment, when they are needed for emergencies, a code system of calls was initiated by the Public Relations Committee after consultation with some of the officials concerned. The simplest method, it was concluded, was to use the doctor's car licence number as his code number. The 1 D series for the city of Winnipeg was obtained, and this will be placed on cards. The Executive of the Manitoba Medical Association approved. There are some doctors who do not have Doctor's licences on their cars, and if they wish to avail themselves of this call system they can do so by notifying the secretary of the Association of their numbers. A card will be prepared for distribution to all parties concerned.

L. A. Sigurdson, M.D.

Future Events

Symposium "Modern Trends in Treatment"

On Monday, April 4th, at the Royal Alexandra Hotel in Winnipeg, the Manitoba Medical Association and the Committee on Post-Graduate Studies, Faculty of Medicine, together with Lederle Laboratories will sponsor a symposium on "Modern Trends in Treatment." There will be six distinguished visitors who will deliver papers on topics of current interest.

All physicians and their wives are invited to this meeting. There is no registration fee. The physicians and their wives will be guests at the noon luncheon and a reception at 5.30 p.m. at the Royal Alexandra Hotel.

Annual Refresher Course April 5, 6, 7, 1955

The Annual Refresher Course, sponsored by the Committee on Post-Graduate Studies, Faculty of Medicine, University of Manitoba, will be held on April 5th, 6th and 7th following the Symposium.

Full details of the Programme will be published and sent to all physicians.

There will be a registration fee of \$20.00 to include the cost of the annual dinner. Please send your registration notices to:

"Committee on Post-Graduate Studies"

Medical College,
Bannatyne and Emily St.,
Winnipeg, Manitoba

Lectures and Discussions on Current Medical Problems

The Mayo Clinic and Mayo Foundation announce a 4-day program, Aprill 19 - 22, 1955, inclusive, of lectures and discussions on problems of current interest in the general fields of medicine and surgery. The number of physicians and surgeons who can be accommodated is necessarily limited. Those wishing to attend should communicate with Dr. N. W. Barker, Mayo Clinic, Rochester, Minnesota, before March 1, 1955. Applications will be honored in the order in which they are received. There is no registration fee.

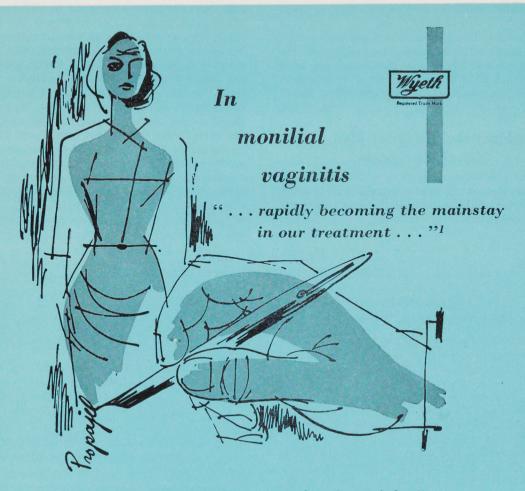
Medical Library Evening Hours
Sponsored by
The Winnipeg Medical Society
The Library will be Open from
8 p.m. to 10 p.m.
Monday through Friday

from
November 1st to December 17th, 1954
and from
January 3rd to April 29th, 1955
Regulations

(1) The Library Committee wishes it under-

stood that the Closing Hour of 10 p.m. will be STRICTLY ADHERED TO;

- (2) All Reading Room facilities available to Physicians and Students;
- (3) The Student on duty will assist in looking up subjects in the Quarterly Cumulative Index Medicus for the last ten years;
- (4) If previous references are required they should be obtained during the regular library hours (9 a.m. to 5.30 p.m.).
- (5) The stackrooms will NOT BE OPEN.
 October 8, 1954 The Medical Library Committee



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1. Abel, S.: GP 4:35, (Oct.) 1951.

Association Page

Reported by M. T. Macfarland, M.D.

Hail and Farewell!

Dr. Reginald Whetter was named to the highest office in the gift of the Association at the business session of the annual meeting.



Born August 19, 1906, and reared in the Hartney district, "Reg" graduated from the Faculty of Medicine, University of Manitoba in 1932. After spending three years in Vita, he moved to Steinbach in July, 1935. Following Dr. Whetter's location in Steinbach a hospital board was formed and Bethesda Hospital was erected the following year.

Nearly twenty years later a modern clinic building staffed by four doctors, and an enlarged hospital housing a health unit testify to the progress which has been made.

Always interested in public affairs, Dr. Whetter has taken an active interest in the work of the Winnipeg Medical Society and of the Manitoba Medical Association.

In 1952, he was elected by ballot to the office of Second Vice-President and following the practice of the past number of years of alternating a rural and an urban doctor, he was elected to the offices of 1st Vice-President and President by acclamation in 1953 and 1954.

Following the Annual Meeting Dr. Whetter and his wife decided to accept an attractive offer in Chilliwack, B.C. and to move in December, 1954, in order that schooling for Murray, 13, and Allan, 10, might not be interrupted.

Installed as President on November 14, 1954, various complications were anticipated with a non-

resident president and Dr. Whetter's resignation was accepted with regret at the last meeting of the Executive Committee. All members of the Association join in extending good wishes for future happiness and success.

Northern District Medical Society

A meeting of the Northern District Medical Society was held in The Health Unit and Hospital Building, Swan River, on Thursday, November 11.

Following the reception, a delicious meal was served in the Nurses' Dining Room after which a business and scientific meeting was held in the Clinic room of the Health Unit.

Present were: Doctors T. F. Malcolm, Swan River, President; M. Potoski, Dauphin, Secretary-Treasurer; J. D. Adamson, Winnipeg; A. H. Boon, Birch River; A. P. Cameron, Swan River; C. R. Green, Ethelbert; J. L. Honig, Bowsman; L. V. Jonat, Swan River; B. Jonsson, Benito; T. Kinash, Gilbert Plains; M. Kozakiewiecz, Swan River; H. Little, Dauphin; M. T. Macfarland, Winnipeg; A. S. Majury, Winnipeg; B. E. Symchych, Dauphin; M. A. Tanasichuk, Grandview; R. W. Whetter, Steinbach.

A communication was read from Dr. W. F. Tisdale, M.M.A. President, expressing regret at his inability to attend the meeting.

A communication requesting the name of a Representative to the Manitoba Medical Association Executive Committee resulted in the reappointment of Dr. M. Potoski of Dauphin for the year 1954-55.

The question of expenses incurred by District Representatives in attending meetings of the Executive Committee was discussed. The Executive Secretary stated that a motion concerning such expenses had been placed on the Minutes four or five years ago but that no accounts had been submitted by the individual members. Following discussion, it was agreed that the Manitoba Medical Association should consider payment of the expenses whether accounts are submitted or not.

The election of officers resulted in the selection of the following for the year 1954-55:

President Dr. M. Tanasichuk, Grandview Vice-President Dr. L. V. Jonat, Swan River Secretary-Treasurer Dr. M. Potoski, Dauphin

Scientific Programme

Dr. A. S. Majury of Winnipeg spoke on the subject "Endocrine Treatment in Gynaecology," and Dr. J. D. Adamson of Winnipeg spoke on "Chronic Cough." Dr. R. W. Whetter, President-elect, and Dr. M. T. Macfarland, Executive Secretary, brought greetings from the Association and discussed various business matters.

Members were entertained at the home of $\mathrm{Dr}.$ Malcolm.

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MULTIPLE HYPOTENSIVES WITH SEDATION EACH CAPSULE CONTAINS:

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Phenobarbital - - ¼ gr. (16 mg.)
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E T H I C A L P H A R M A C E U T I C A L S

College of Physicians and Surgeons of Manitoba

Registration Committee September 7, 1954

Enabling Certificates Deferred

William Harold Ho Asjoe, M.D., Creighton U., 1953.

Donald Dave Robert Ballyk, M.D., St. Louis U. School of Medicine, 1952.

Pei Chi Wang, M.D., U. Lyon, 1935.

Milo Tyndel, M.D., U. Vienna, 1933; Ph.D., U. Vienna, 1948.

Enabling Certificate Granted

Hsi-Lin Tung, M.B., Hsiang-Ya Medical College,

Certificates of Registration Confirmed

Sheena Graham MacDonald Guest, M.B., Ch. B., U. Glasgow, 1952.

Eugene Mario Edmund Morigi, M.D., U. Bologna, 1947; L.M.C.C., 1954.

William Francis Perry, M.D., C.M., Queen's U., 1946; L.M.C.C., 1946.

John Edward Rowlands, M.R.C.S., England, 1933; L.R.C.P., London, 1933; F.R.C.S., Edinburgh, 1947

Hubert Landry, M.D., Laval U., 1954; L.M.C.C.,

Certificates of Registration Granted

Marcel Corneille Blanchaer, M.D., C.M., Queen's U., 1946; L.M.C.C., 1946.

Alfred Mutchnik, L., L.M., R.C.P. Irel., 1953; L., L.M., R.C.S. Irel., 1953.

Walter Zingg, M.D., U. Zurich, 1951; M.Sc., U. Manitoba, 1952; L.M.C.C., 1954.

David Pearlman, M.D., U. Alberta, 1953; L.M.C.C.,, 1954.

Certificate of Licence (Temporary) Confirmed

Wladyslaw Nakielny, M.D., U. Berne, 1951; L.M.C.C., 1954.

Certificates of Licence (Temporary) Granted

Thomas Murray Black, M.D., C.M., Queen's U., 1949; L.M.C.C., 1949.

Jean Viateur Deshaye, M.D., Laval U., 1949; L.M.C.C., 1949; D.P.H., U. Toronto, 1954.

Registration Committee September 27, 1954

Enabling Certificates Deferred

Ging-Tong Chang, M.D., West China Union U., 1947.

Ladislav Vladimir Fischmeister, M.D., U. Geneva, 1951.

Enabling Certificates Granted

John Silinsky, M.D., l'Aurore U., 1948.

Alexander Johannes Bozyk, M.D., U. Vienna, 1944.

Kai Harold Pihl, M.D., College of Medical Evangelists, 1946.

William Harold Ho Asjoe, M.D., Creighton U., 1953.

Christopher Francis Wolkenstein, M.B., B.S., U. Melbourne, 1947.

Certificate of Registration Deferred

Ralph Fredman, L.R.C.P., Edin., 1941; L.R.C.S., Edin., 1941; L.R.F.P.S., Glasg., 1941.

Certificates of Registration Granted

Daisy Corbin (Feng Sih En), M.D., National Medical College of Shanghai, 1938; L.M.C.C., 1954.

Robert Gibson, M.B., Ch.B., U. Glasgow, 1953; D.P.M., R.C.P.S., Lond., 1939; M.D., U. Glasg., 1942

Peter George Premachuk, M.D., U. Ottawa, 1954; L.M.C.C., 1954.

Patrick Martin Fenton McGarry, M.B., B.Ch., National U. of Ireland, 1946; D.A., R.C.P.S., Irel., 1954; D.A., R.C.P.S., Eng., 1954.

Hugh Murray Ross, M.D., U. Toronto, 1942; L.M.C.C., 1942.

James Elliott Allan Paterson, M.B., Ch.B., U. Glasgow, 1940; D.M.R.D., R.C.P.S., Lond., 1948.

Alexander Peter Lapko, M.D., U. Stalino, 1941; L.M.C.C., 1953.

Certificates of Licence (Temporary) Granted

John Douglas Mahon, M.D., C.M., McGill U., 1943; L.M.C.C., 1944.

Peter William Hopper, M.R.C.S., England, 1942; L.R.C.P., London, 1942; D.R.C.O.G., 1948.

Peter Henry Mierau, M.D., Odessa U., 1939; L.M.C.C., 1954.

Executive Committee September 7, 1954

A meeting of the Executive Committee was held in the Medical Arts Club Rooms, Winnipeg, on Tuesday, September 7th, 1954, at 8:00 p.m.

Present—Dr. C. B. Stewart, Chairman, Dr. Ed. Johnson, Dr. G. H. Hamlin, Dr. C. H. A. Walton, Dr. A. R. Birt, Dr. T. W. Shaw, President, exofficio, and Dr. M. T. Macfarland, Registrar, exofficio.

The Chairman was unable to be at the meeting at 8:00 p.m.

Motion: "THAT Dr. C. H. A. Walton take the chair until Dr. C. B. Stewart arrives at the meeting." Carried.

Business Arising From Council Meeting Held May 19, 1954

A. Gordon Bell Memorial Trustees'—Letter from

A communication was presented from Dr., present recipient of the Gordon Bell Memorial Fellowship, outlining the work he was doing, and expressing appreciation of the assistance received from the Gordon Bell Fellowship.

B. Applications for Specialist Registration

The Registrar advised that specialists coming to set up practice in Manitoba had to wait several months for a meeting of the Executive Committee or Council before their applications for specialist registration could be considered, and that the Manitoba Medical Service did not accept them as specialists until they are registered on the Specialist Register of the C.P. & S.

It was agreed that in order to expedite applications for registration on the Specialist Register, it be recommended to Council that the Specialist Committee be reinstated to consider applications as they are received.

Motion: "THAT an Advisory Committee, patterned after the original Specialist Registration Committee, be set up to advise Council on applications for specialist registration." Carried.

Of the 8 applications for specialist registration considered, 6 were referred to Council to be accepted in their specialities, and 2 were deferred pending receipt of additional information.

C. Brief Submitted to the Royal Commissions on the Law of Insanity as a Defence in Criminal Cases, and on Criminal Law Relating to Criminal Sexual Psychopaths.

The Registrar read the two briefs which were prepared jointly by the Department of Psychiatry, Faculty of Medicine, University of Manitoba, and the Psychiatric Section, Manitoba Division, Canadian Medical Association, which were submitted in August 1954 to the Royal Commissions on the Law of Insanity as a Defence in Criminal Cases, and on Criminal Law Relating to Criminal Sexual Psychopaths.

D. Re Grant for Furnishing Medical College Auditorium

The Registrar presented communications from the Dean of the Faculty of Medicine, and the Chairman of the Board of Governors of the University of Manitoba, acknowledging the offer of Eight Thousand Five Hundred Dollars (\$8,500.00) from the C.P. & S. to furnish the Auditorium of the new Medical Building, and advising that a suitable plaque will be installed in the Auditorium to acknowledge the gift of the College.

E. Report of the Registrars' Meeting Held in Vancouver, June 16, 1954

The Registrar presented the minutes of the Registrars' Meeting held in Vancouver on June 16, 1954, and the Executive Committee agreed that they should be incorporated into the minutes.

Registrars' Meeting June 16th, 1954

A meeting of the Registrars of the various licensing bodies in Canada was held in the Board Room, Academy of Medicine, 1807 West 10th Avenue, Vancouver, B.C. at 1:30 p.m. on Wednesday, June 16th, 1954.

1. Call to Order

The meeting was called to order at 1:50 pr with Dr. Lynn Gunn, Registrar, College of Physicians and Surgeons of British Columbia in the Chair with the following present:

Dr. C. Macpherson, Registrar, Medical Board p Newfoundland; Dr. M. G. Tompkins, Presider Medical Board of Nova Scotia; Dr. F. L. Whitehea Representative, Medical Council of Prince Edward Island; Dr. John R. Nugent, Representative, Met cal Council of New Brunswick; Dr. J. Dauphinee, President, College of Physicians ar Surgeons of Ontario; Dr. R. T. Noble, Registre College of Physicians and Surgeons of Ontar f. Dr. M. T. Macfarland, Registrar, College of Phy. cians and Surgeons of Manitoba; Dr. G. W. Peacot Registrar, College of Physicians and Surgeons f Saskatchewan; Dr. W. Bramley-Moore, Registra College of Physicians and Surgeons of Albert Dr. J. Fenton Argue, Registrar, The Medical Court cil of Canada.

Letters of regret were received from Dr. Job M. Barry, Registrar, Medical Council of Ne Brunswick, Dr. H. L. Scammell, Registrar, Pr vincial Medical Board of Nova Scotia and Dr. R. C. Lea, Registrar, Medical Council of Prince Edwa

Minutes — Meeting held at Winnipeg, June 18th, 1953.

It was moved by Dr. G. W. Peacock, second by Dr. W. Bramley-Moore, "THAT the minutes Meeting held on June 18th, 1953 be adopted circulated."

Business Arising Out of Minutes. British Commonwealth Conference, Toronto, 1955.

In response to enquiry regarding arrangement for this meeting, Dr. Noble reported that there is some divergence in information received from I Routley and Dr. Kelly and he therefore honothing concrete to report. It was suggested the Dr. Noble write to Dr. Kelly asking for definiterms of reference in connection with this meeting and then advise each of the provinces which has been finalized. Dr. Noble was assured of coperation from all provinces in furnishing a information required.

Advisability of Having Uniform Regulations : Issuing Enabling Certificates to Foreign Train Physicians:

(with particular reference to the Basic Scient Examination)

The Chairman presented Brief regarding to problem of the foreign trained physicians (copy which is attached). He then called on Dr. Ma farland who had prepared a summary of to present provincial regulations regarding basesiences examinations.

Dr. Macfarland advised he had forwarded questionnaire to all provinces on this matter a

summarized replies as follows:

The following five provinces now use the basic sciences examination - Ontario, Saskatchewan, Manitoba, Alberta and British Columbia. Some provinces require an examination in English. The provinces vary as to when these basic sciences examinations are taken—some prior to interneship, others require an interneship in an approved Canadian hospital before allowing the candidate to write the examinations. The number of subjects written vary from three to six. All but two of the provinces felt that some form of basic sciences examination was desirable. The majority were in favour of allowing supplementary examinations and indicated that examinations should be both written and oral, with two provinces suggesting that additional clinical examinations be held. In reply to the question which body should conduct these examinations, the majority were in favour of the local university with one suggesting the provincial licensing body and one the Medical Council of Canada.

Discussion then followed on subjects to be covered by these examinations. It was unanimously agreed that anatomy and physiology be included, other subjects being discussed but no definite decision being reached.

It was agreed that representatives at this meeting report back to their respective Councils that the matter of uniform basic sciences examination was discussed and is recommended for their consideration.

The question of uniform regulations for the granting of Enabling Certificates to foreign trained physicians was then discussed. This has become an increasing problem to the various provinces and it was agreed that uniform regulations were most desirable.

In discussion which followed, it was pointed out that this is a provincial problem and that the Medical Council of Canada, being composed of representatives from the various provinces, would accept any desired changes in regulations.

It was then moved by Dr. M. T. Macfarland, seconded by Dr. John R. Nugent "THAT consideration and study be given to this problem by the provincial boards and the Medical Council of Canada." Carried.

Assessment of Credentials of Foreign Physicians Prior to Interneship

Discussion followed, in which each representative briefly outlined their requirements for interneship. From this discussion it would appear that Alberta and British Columbia are the only provinces which require the basic sciences examination prior to permitting graduates of non-approved schools to interne: Graduates of approved schools are permitted to interne on submission of docu-

ments. There is apparently no provision for screening of foreign graduates in P.E.I., New Brunswick, Quebec, Ontario, Manitoba prior to interne appointments. While there are no legal requirements in Saskatchewan the hospitals refer applicants to the College for assessment of credentials prior to accepting them, who in turn submit the documents to the University to be checked. After interneship they must present proof of having completed satisfactory rotating interneship in one of six approved hospitals before being granted an enabling certificate. In Newfoundland and Nova Scotia foreign applicants are screened before being allowed to take such interneship. New Brunswick does not screen applicants but requires two years interneship in Canada, one year to be taken in New Brunswick. Ontario requires one year's interneship in an approved hospital before granting enabling certificate. They require a Certificate from the Chief of Staff and Heads of the various departments as to his ability.

Medical Council of Canada Revised Regulations re Interneship

The Ontario representatives advised that under a regulation to take effect after 1958, a license to practise in Ontario may be obtained only by a graduate of a recognized school who has done a year's interneship in an approved Canadian hospital. They have therefore withdrawn their objection to cause 43 (b) provided the Medical Council of Canada will accept for examination Ontario candidates on graduation and will forward their marks as soon as the examination has been completed. They will receive their L.M.C.C. on completion of interneship.

4. Unfinished Business.

There was no unfinished business.

Report from the Medical Council of Canada That the Present Enabling Certificate Be Reviewed.

Request has been received from the Medical Council of Canada that the provinces review the format of the enabling certificate.

Dr. Bramley-Moore offered several suggestive changes in the format of the enabling certificate. Discussion followed, and he was requested to submit drafts of his various suggestions to the provincial bodies for their consideration.

Brief From Defence Medical & Dental Services Advisory Board

Dr. P. A. T. Sneath, Executive Secretary of the Defence Medical and Dental Services Advisory Board here attended the meeting and presented a Brief regarding plan for the most effective, efficient and economical utilization of the health personnel and material resources of the country in the event of a national emergency.

Dr. Sneath spoke at length on this matter, the synopsis of his remarks being two points:

1st—the problem of utilizing all medical men in the event of an emergency.

2nd—the question of licensure—if an emergency occurred the interchange of medical personnel from various provinces to the localities in which they would be most needed, irrespective of licensure.

Considerable discussion ensued during which Dr. Sneath offered the suggestion that a member of this group be designated as a member of the Advisory Board who would have the endorsement of the various Councils.

It was then moved by Dr. M. T. Macfarland, seconded by Dr. G. W. Peacock "THAT someone be nominated to represent this group under the terms of limitation." Carried.

After which it was moved by Dr. Cluny Macpherson, seconded by Dr. M. C. Tompkins "THAT Dr. M. T. Macfarland represent this group." Unanimously carried.

Letter From Hon. W. E. Harris, Minister of Citizenship & Immigration, Concerning Present Requirements of the Various Provinces for Registration of Foreign Physicians

The Chairman read this letter and presented pamphlet issued by the Department of Citizenship and Immigration covering the requirements for registration in the various provinces in Canada.

This matter was briefly discussed and it was agreed that the Department of Immigration be requested to supply sufficient copies of this brochure so that it may be forwarded to all Registrars for any necessary correction.

Vote of Thanks

Dr. Whitehead, on behalf of the representatives present, expressed appreciation for the arrangements made for this meeting.

The Chairman referred to the pending retirement of Dr. Argue and to his help and assistance during the past. A unanimous expression of appreciation was extended to Dr. Argue.

1955 Meeting of Registrars

This meeting will be held in Toronto in June 1955, at the time of the C.M.A. and B.M.A. Convention.

Adjournment

There being no further business the meeting adjourned at 5:30 p.m.

Brief Presented to Conference of Registrars, Provincial Licensing Bodies—"The Problem of the Foreign Trained Physician"

Gentlemen:

Before proceeding with the business of this Conference, let me, on behalf of our Council, tell you how genuinely happy we are to have you with us in Vancouver today. I trust that your visit will not only be profitable but enjoyable. If we can be of any assistance to you at any time do not hesitate to call on us.

May I, at this time, express my sincere appThiciation for the help and advice that I have receiver from all my brother Registrars. Our Annual Correspondence provides a medium for exchange of ideCorrespondence and problems, not only on a provincial but also in a national level.

I feel that the keynote for our discussions scient. The Problem of the Foreign Trained Physicistus which is not a localized but a national problem I should like to review, very briefly, some of the fundamental factors that develop this subject.

The prime objective of all licensing bodies is pulsafeguard the public from poorly trained phyprocians. The last war brought destruction and dengeneration to medical education everywhere of Europe except in Great Britain, Switzerland at the Scandinavian countries. Medical students the some European countries have received Universisch credits for time actually served in the armed forcal Many foreign medical schools are financed entirecil by fees received from their students. Consequence ly, we find some medical schools enroll as masta as 6,000 students. Most of them have far greatwisnumbers than they can properly train. We sib informed that in some areas there have been we major curriculum changes in the past fifty yeaCo

The American Medical Association has emadeavored to inspect foreign medical schools exadetermine whether they provide basic medical training on a par with that of approved schoolall on the North American continent. So far, sorable 50 foreign schools have been inspected but, single there are more than 550 medical schools in the world, this is an almost impossible task.

As a result, a number of our Canadian Propresinces have, in recent years, adopted a plan flat screening the professional training of foreign physicians prior to admitting them to the examinto tions of the Medical Council of Canada. Unfosot tunately, at the present time, some provinces grant screen foreign physicians by means of a Bacce Sciences Examination before allowing them for undertake an Interneship.

While it is true that there has been sor progress in this country in the last few years condetermining the qualifications of foreign phyticians prior to being granted an Enabling Certival cate, there is still wide variation in the requirivise ments of the various provinces. Some provinces not have facilities for conducting examinations 2. basic sciences, others require an examination A. only three subjects as compared to the six subject required by other provinces.

It is a cause of considerable embarrassme when a foreign physician, who has been unater to meet the requirements of this Province, mi granted an Enabling Certificate by another proved ince with lower standards, and we are compelled to register him, as he has secured his L.M.C. Inst PpThis unhappy situation could be corrected if the elivarious provinces would agree on a method of Correctening foreign applicants (prior to granting an idenabling Certificate) by means of an examination on hasic sciences. In the final analysis the basic sciences are the elementary and fundamental insciences on which all healing is based. Medical cistudents in this country are required to have an oleadequate knowledge of anatomy, bacteriology, fithemistry, pathology, physiology and pharmatology. In fairness to our own graduates, and the is public, we should demand that foreign graduates thereof the above subjects equally to that required of our own graduates.

It is fully realized that it may be difficult for the three provinces in which there is no medical sischool, to conduct examinations in basic sciences. cA solution would be to petition the Medical Counrecil of Canada to conduct an examination in Basic Sciences. Such an examination would set a useful standard to the few provinces which might still wish to conduct their own examinations. It is possible that, in the foreseeable future, all provinces would accept the examinations of the Medical Council of Canada in basic sciences in the same manner that they have accepted the clinical examination. This procedure would be fair to the foreign physicians, and would serve to protect all provinces from the possibility of granting Enabling Certificates to candidates whose training has not been commensurate with Canaidan standards.

I will now call on Dr. Maxwell Macfarland, Registrar of the C.P. and S. of Manitoba, who has prepared a summary of the present provincial regulations regarding basic sciences. I trust that after full discussion, we will be prepared to recommend to our respective Councils, for their consideration, some definite proposals for the screening of foreign graduates, prior to granting them an Enabling Certificate. Whatever progress is made in the next few years will have to be initiated and led by the various Provincial Boards, as a concerted whole.

Motion: "THAT the Executive Committee recommends to Council that the Registrar's nomination as representative of the Registrars of the various licensing bodies across Canada to the Advisory Board of the Defence Medical and Dental Services be accepted." Carried.

2. Correspondence.

A. Communication From the Medical Library Committee Requesting a Grant for the Training of a Medical Cataloguer.

A communication addressed to the Treasurer from the Chairman of the Medical Library Committee was presented, advising that the Library's request for aid in financing the training of a cataloguer was not accepted by the Director of Health Insurance Studies of the Department of National

Health and Welfare. He requested a grant-in-aid to financially assist a member of the Medical Library Staff,, to attend the Toronto Library School for the session 1954-55. He stated that the total amount for the year will be \$935.43, and requested the minimum sum of \$790.00 to cover only tuition and board and room.

A communication from the Treasurer was presented advising he had discussed this with the other members of the Finance Committee who consider the grant should be made. He suggested the sum of \$400.00 be paid from this year's accounts, and the balance in October from next year's income. He stated had undertaken to remain with the Library for a period of years after receiving this instruction.

Motion: "THAT the Executive Committee authorize a grant of Seven Hundred and Ninety Dollars (\$790.00) to the Medical Library Committee for the purpose of assisting the training of a cataloguer for the Library in current academic session at the Toronto Library School." Carried.

B. Communicaton From the Chairman, Committee on Qualifications, Medical Council of Canada

A communication from the Chairman of the Committee on Qualifications of the Medical Council of Canada was read, advising that the M.C.C. had authorized the setting up of a special Committee on Examinations to review the entire matter of examinations with recommendations for change as the Committee may deem expedient and desirable. He suggested the following matters for consideration, and inquired whether the C.P. & S. Executive Committee would consider them and give any suggestions which would assist his Committee:

- 1) The subjects of examination—Should some be dropped, e.g. Pathology and Bacteriology and Pubilc Health? Should some be added, e.g. Paediatrics and Psychiatry.
 - 2) The scope of examination in each subject.
- 3) The method of examination, e.g. possible change in emphasis as between written and clinical or oral: emphasis on technique and methods of clinical examination of patients; provision of a standard history form for use of candidates: the use of the so-called objective and multiple choice type of examinations.
- 4) Who should examine,—all teachers or some teachers and some non-teachers.
- 5) Tenure of examiners' service,—i.e. appointment for stated term, and possible age of retirement.

After considerable discussion the Executive Committee expressed the opinions that in view of the wide-spread specializing of Public Health it might be dropped as a written paper, and that they are sympathetic to more emphasis on paediatrics and psychiatry, but not prepared to recommend a

whole paper to one or both subjects.

The Committee agreed that the CP. & S. representatives to the Medical Council of Canada support Dr. Mathers in accordance with the discussion by this Committee.

C. Communication From Department of National Health and Welfare re Licensing Examinations in Japan

A communication from the Deputy Minister of National Health was read advising that the Department of External Affairs had brought to his attention a situation which has arisen in Japan effecting Canadian doctors practising in that country, that the Japanese Government has given notice that licensing examinations will now only be conducted in Japanese. He inquired whether there is any demand or any likelihood of demand for Japanese doctors in Manitoba, and whether there is any possibility of this College acceding to the suggestion that they grant reciprocal arrangements to the Japanese licensing authorities. The Registrar replied that there have been no applications from Japanese-speaking physicians, and that no request for granting of reciprocal licensure arrangements has been received from the Japanese licensing authorities, and any such request would require considerable study before any action was taken by Council.

The Executive Committee felt that there would be no possibility of entering into reciprocal arrangements with the Japanese Government, nor do they consider it practical to conduct examinations in the Japanese language.

D. Communication From Cancer Clinic, Government of the Province of Alberta, re

The Registrar presented a letter received by a Winnipeg physician in which it states: "I wish to draw your attention to the fact that the patient is taking medicine prescribed by some man by the name of ______, a druggist ______, who has advised he can cure Mr. _____ cancer by internal medication." The Registrar advised he had forwarded a copy of the letter to the Manitoba Cancer Relief and Research Institute and the Manitoba Pharmaceutical Association.

E. Communication From Canadian Medical Association, Alberta Division

The Registrar presented a communication from the Secretary-Treasurer of the Alberta Medi-

cal Association advising that the Editor of the Canadian Medical Association Journal had asked him to prepare a paper on the provincial requirements for practising medicine in each of the provinces, to be published in a special issue of the C.M.A.J. next year. He requested the information concerning Manitoba to be forwarded in the form in which it would be published, so he could consolidate all the reports from the various province Agreed.

F. Communication From the American Medic Association

The Registrar presented a communication from the Assistant Director, Department of Records at Circulation, American Medical Association, a vising they are preparing data for the forthcomic edition of the American Medical Directory. A coposition of the Medical Act, Digest of Laws and Boat Ruling, and Provincial Registrar as it appeared the Eighteenth Edition was enclosed with a request that they be revised and returned for listing in the Nineteenth Edition. Agreed.

G. Communication From Department of Nation Health and Welfare

The Registrar presented a communication for the Director, Research Division, Department National Health and Welfare enclosing a copy "Voluntary Medical Care Insurance: A Study Non-Profit Plans in Canada." The Registrar a vised he had requested an additional 4 to 6 copi for distribution.

H. Bonds

The Registrar advised that \$1500.00 in bonds the 4th Dominion of Canada Loan 3% due May 1957 has been called for redemption October H. 1954 at \$101.26, and the new issue 31/4%, 25 ye gadue October 1, 1979, are available at par.

The Executive Committee agreed that the Foundance Committee should study this matter attered to Council in October.

I. Acknowledgment From Mrs.

A communication from Mrs. _____ was reacknowledging with thanks the wedding gifts and her husband received from the C.P. & S.

J. Confirmation of Date of Council Meeting

It was agreed that the Annual Council Meeti 8th be held on Saturday, October 16, 1954, at 9:00 at 16 in the Manitoba Medical Service Building.

K. Adjournment

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College of Physicians and Surgeons of Manitoba

Specialist Register

Three years ago a by-law approving the establishment of a Specialist Register was passed by the Council. Fellows or Certificated Specialists of the Royal College of Physicians and Surgeons of Canada were entitled, on application and the payment of the fee, to be enrolled. Many such applications were received. Until December 31st, 1953, a Committee representative of the Medical Faculty, University of Manitoba, the College of Physicians and Surgeons of Manitoba, and the Manitoba Medical Association, considered applications from those who had qualifications other than the Royal College of Physicians and Surgeons of Canada. It was originally intended that after January 1st, 1954, the Royal College standard would be the acceptable one for recognition, but the joint committee was reactivated to deal with outstanding applications and make recommendations to Council. It is intended that the Specialist Register will be printed in the near future, and qualified persons who have not already done so are invited to submit applications on the approved forms to 604 Medical Arts Building, prior to January 31st.

Obituaries

Dr. Lambert Breidenbach

Dr. Lambert Breidenbach died in St. Boniface Hospital on November 5th, aged 67. Born in Hungary, be came to Kenora as a young man. He attended St. Boniface College and in 1912 he graduated from Manitoba Medical College. He practised continuously at Altona until his retirement two years ago. As a young man he engaged in curling and lawn tennis.

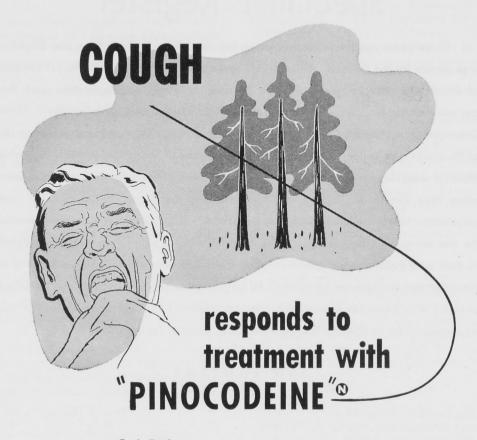
Dr. Harry Micay

Dr. Harry Micay, a graduate in medicine of the University of Manitoba in 1932 died on November 8th at Rochester, Minnesota, aged 44. He practised for many years at Charleston, West Virginia and will be buried there.

Dr. Robert Judson Cooke

A life member of the Canadian Medical Association, Dr. Robert Judson Cooke, aged 85, died on November 6th at Regina where he had lived following his retirement from practice in 1947. Born near Merrickville, Ontario, he came with his family to Boissevain in 1886. He was an honor graduate of Wesley College in 1893 then taught school at Ninga and Melita High until entering Manitoba Medical College and in 1902 he was gold medalist and honor graduate. After a year's interneship in Winnipeg General Hospital he practised in Wolseley for 44 years. There he was town councillor, mayor and chairman of the school board. He is survived by his widow, two daughters and two sons, Dr. Terrence J. and Dr. Robert L., both of Winnipeg.





Each fluid ounce contains:	
Pinus strobus	32 gr. (2.1 G.)
Prunus virginiana	32 gr. (2.1 G.)
Sanguinaria canadensis	4 gr. (0.25 G.)
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General Practitioners

General Practitioners' Association of Manitoba
In Affiliation with the Manitoba Medical Association

The General Practitioner's Association of Manipoba is off to a flying start this year with a trenendous amount of enthusiasm of a large section of the profession. There is no doubt that the recent inauguration of the College of General Practice of Canada has had a lot to do with this new interest in the standards maintained by the family doctor."

Executive Meeting

At a recent meeting of the Executive the folowing standing committees were set up: Public Relations and Publicity—

Dr. A. G. Henderson Programme—Dr. J. Swan Education and Scientific—Dr. Don Hastings Hospital Committee—

Dr. Jim Edward (chairman)

Dr. E. Johnson

Dr. Jack McKenty

Economics—Dr. Murray Hodgson
Membership and Attendance—Dr. L. Mongeon

Social—Dr. J. Swan

Constitution and By-laws—Dr. D. Hastings Nominating Committee—

minating Comn Dr. W. Boyd

Dr. J. McKenty Dr. V. Bachynsky

Dr. Mel Brown

Resolutions-Dr. Bert Flett

A highlight of the present year of the G.P.A.M. is the course in Surgical lectures being delivered by members of the Surgical Department of the Faculty of Medicine of the University of Manitoba. The lectures so far delivered have been of a high calibre and have been very well attended. For those who live in the country and the city members not able to get to all or part of any particular lecture it is hoped to be able to print in the Review a short summary of the salient points. In this issue will be found such a summary of the lecture given by Dr. George Ryan on Orthopedic Conditions of the Back.

You will also find a list of the lectures still remaining. We are indeed fortunate to have these wednesday Night "brain dustings" and every G.r. intent on maintaining his knowledge up-to-date will not want to miss a single one.

Sacro-Iliac Backache or Strain Lecture by George Ryan, M.D.

History: Sudden onset, following trauma (may be minor). Pain severe, felt to right or left of midline, frequently accompanied by marked postural scoliosis.

Radiation: Into upper thigh and buttock. Pain aggravated by bearing weight on affected side.

Physical Findings: 1. Scoliosis. 2. Muscle spasm. 3. Tenderness in the region of the sacroiliac joint. Spine not tender. 4. Prominence posterior superior iliac spine (occasionally).

X-ray Findings: Negative.

Treatment: 1. Recumbency, heat and traction. 2. Manipulation. 3. Support (for recurrent attacks).

Fibrositis Interspinous Ligament

Symptoms: Localized midline back pain, usually no radiation. Aggravated by activity, particularly stooping or lifting.

Physical Findings: Acute tenderness between spinous processes (spines not tender).

X-ray Findings: Negative.

Treatment: 1. Injection. 2. X-ray therapy.

Sciatica

Pain: Pain in low back, buttock, thigh and leg, sometimes in the foot.

Character: Sharp, cutting, often worse on activity. May be relieved on recumbency. Often accompanied by parasthesia in lower calf and foot. Often associated with scoliosis. Aggravated particularly by stooping and lifting.

Physical Findings: 1. Marked spasm of lumbar muscles. 2. Marked limitation of movement. 3. Tenderness in the lumbo-sacral area. 4. Pain on straight leg raising. Diminished sensation lateral side of leg and foot (frequent diminution or loss of ankle jerk). Atrophy thigh and calf (frequent).

X-ray Findings: 1. Narrowing of the intervertebral space. 2. Hypertrophic changes around facets. 3. Spurring of vertebral bodies. 4. Positive myelogram.

Treatment: 1. Conservative—recumbency, heat, rest and traction. 2. Epidural injection of Novocaine. 3. Disc operation.

Lumbo-Sacral Backache

Pain: In lumbo-sacral area.

Radiation: Across lumbo-sacral region and into buttock or upper thigh.

Character: Aching, worse after resting, and often worse on arising. Accompanied by stiffness. Clears up some extent on light activity, but aggravated by heavy work, particularly bending or lifting.

Physical Findings: 1. Spasm of the lumbar muscles. 2. Limitation of movement. 3. Tenderness on pressure (over spines). 4. Usually no abnormal findings in lower extremities.

X-ray: 1. Narrowing of the intervertebral space. 2. Hypertrophic changes around facets, 3. Spurring of vertebral bodies.

Treatment: 1. Head traction, heat and massage. 2. X-ray therapy. 3. Myelogram 4. Immobilization: (a) Collar, (b) Fusion.

Osteoarthritis Cervical Spine

Pain: Usually felt most acutely in neck, shoulder and upper arm.

Radiation: Into — 1. Sub-scapular region. 2. Front of chest. 3. Axilla (No. 3 not common). May radiate down as far as the fingers. Most frequent site of radiation—region of deltoid insertion. Pain often worse at night. Is aggravated by adbuction and rotation at shoulder joint.

Physical Findings: Tenderness lateral side of neck (and trapezius?) Cervical spine stiff and usually tender. Head movements reduced. Pain on abducting and rotating arm. Usually no palpable tenderness at tip of the shoulder or upper arm.

X-ray Findings: Shoulder negative. Cervical spine shows disc degeneration. Osteoarthritic changes very common.

Treatment: 1. Physiotherapy. 2. Exercise. X-ray therapy. 4. Immobilization — (a) corset plaster jacket, (c) fusion.

Post-graduate Surgery Lectures List of Those Still Remaining

(Every Wednesday at 8:15 p.m.)

January 5, 1955-Dr. C. Ferguson: Surgery of ant Heart and Great Vessels.

January 12, 1955-Dr. C. E. Corrigan: Herniot Dipl and its Complications.

January 19, 1955—Dr. S. S. Peikoff: Practical Dys proach to the Acute Abdomen.

January 26, 1955—Dr. E. Stephenson: BladEry Stones. Non-specific Urethritis and EpidEnc mitis.

February 2. 1955—Dr. E. W. Pickard: Principle Mes Plastic Repair.

February 9, 1955—Dr. P. H. T. Thorlakson: Ind Mu tions for Surgery in Gall Bladder Disease Pue February 16, 1955-Dr. D. Parkinson: Non-tisca matic Lesions of Brain and Spinal Cord. February 23, 1955—Open for suggestions.

Victorian Order of Nurses

Some parents have little or no difficulty adjusting their routine of family living to include a new baby. Many, however, feel the need of some assistance when mother and baby come home from hospital. Visits from the Victorian Order of Nurses will often supply this need during the readjustment period. Demonstration of the care of the baby, using the family's own equipment and interpretation of the Doctor's instructions help to ease the strain of the first days at home. It is the policy of the Order to have the nurse make the necessary number of daily visits (for which the patient pays) then to make weekly instructive visits until baby is 5 weeks of age. These weekly visits are made without charge.

The nurse is usually deluged with such questions as: What can I do for my baby's hiccoughs? Has my baby caught a cold — he sneezes so much? How many bowel movements should my baby have a day? Is it safe to cut my baby's finger nails? If my baby brings up its feeding, can I feed him again right away or do I have to wait three or four hours?

REMEMBER

Winnipeg Medical Society BENEVOLENT FUND

Subscriptions may be sent to 604 Medical Arts Building

One staff nurse tells of her visits to MrUn when she returned home from hospital with Whosecond son. (Bobby, aged 4, couldn't tell the now whether he had a brother or sister, but assured in the state of th nurse it was a boy!) On the first visit baby [u] bathed and instruction given in the care of cord and circumcision; the formula was prepar Fo the bed checked and approval expressed for firm mattress and choice of bedding. On subsequ weekly visits Mrs. J usually had a list of quest which were dealt with before further instrucwas given. She was encouraged to contact 'Ap doctor for advice when necessary. At the entant the six weeks, in expressing appreciation, Mrchie stated that the Victorian Order Nurse's visits Dia also given her a greater understanding of Dip functioning of the Community Chest. She said Dys had always donated, perhaps a little grudgin Dys like many others but in the future she would hence a different feeling about such contributions.

DOCTORS' and NURSES' DIRECTORIES 247 Balmoral Street, Winnipeg, Man.

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Department of Health and Public Welfare

Comparisons Communicable Diseases — Manitoba (Whites and Indians)

	1954		1953		Total	
DISEASES	Oct. 31 to Nov. 27,'54	Oct. 3 to Oct. 30,'54	Nov. 1 to Nov. 28,'53	Oct. 4 to Oct. 31,'53	Jan. 1 to Nov. 27,'54	Jan. 1 to Nov. 28,'53
of Anterior Poliomyelitis	1	7	58	157	116	2347
Chickenpox	187	145	180	76	1663	1260
ioto)iphtheria	0	0	0	0	0	4
Diarrhoea and Enteritis, under 1 yr.	7	19	14	18	145	198
Diphtheria Carriers	0	0	0	0	0	0
Dysentery—Amoebic	0	0	0	0	0	0
Dysentery—Bacillary	1	1	6	3	21	25
ladErysipelas	Ô	2	1	0	25	28
idincephalitis	0	0	Ô	0	4	11
nfluenza	2	9	13	16	81	243
Measles	90	63	157	53	1012	2495
pleMeasles—German	2	0	6	1	16	46
Meningococcal Meningitis	0	4	2	3	20	33
mellingococcar weiningtas	72	72	71	32	1087	969
Ophthalmia Neonatorum		0	0	0	0	0
Puerperal Fever	0	1	0	0	1	1
1-tiScarlet Fever	43	36	82	33	501	425
Septic Sore Throat		4	7	5	51	95
Septic Sore Throat	0	Ô	0	0	0	0
SmallpoxFetanus	0	0	0	0	2	2
	0	0	0	0	0	0
Frachoma	67	73	54	3	640	812
Fuberculosis	0	0	0	0	3	0
Typhoid Fever	0	0	0	0	0	0
Typhoid ParatyphoidTyphoid Carriers	0	0	0	0	0	0
Typhold Carriers	0	1	1	2	6	13
MrUndulant Fever	70	86	16	11	261	194
h Whooping Cough	124	122	89	113	1270	1152
Gonorrhoea	3	4	12	4	88	81
Syphilis	35	27	43	16	329	317
ed Infectious Jaundice	0	0	0	0	2	9
V Fularemia	U	0	0	0	2	4

Four-week Period, October 31st to November 27th, 1954

		-		
for		861,000 Saskatchewan		
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DISEASES	a	he	0 -	ot
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(White Cases Only)	809,000 Manitoba	8 ka	3,825,000 Ontario	*2,952,000 Minnesota
ct *Approximate population.)9, [a]	31, as	8, u	9. (II)
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entanterior Poliomyelitis	1	38	13	24
MrChickenpox	187	34	1166	
ts Diarrhoea & Enteritis, under 1 yr	20.	5	1100	
		0	****	2
of Diphtheria		****		2
Diphtheria Carriers			* ****	****
Dysentery—Amoebic				1
Sin Dysentery—Bacillary	1	****	9	5
Encephalitis Epidemica				5
Erysipelas		1		
Influenza	2	1	11	17
Jaundice, Infectious	35	65	100	192
Measles		9	615	417
German Measles	2	1	62	
Mumps	72	28	798	
Ophthal. Neonat.				
DyPuerperal Fever			****	440.0
RiPsittacosis				1
Scarlet Fever	43	21	143	52
Septic Sore Throat	3	27		57
Smallpox	****			
Tetanus			****	****
of Trachoma	****		-	****
alk Trichinosis	2.22		1	
Tuberculosis Tularemia	67	44	95	94
Typhoid Fever			3	****
8 Typhoid Carriers				****
Typh. Para. Typhoid				177
Undulant Fever		1	5	17
Whooping Cough to Gonorrhoea	70	7	1032	189
		****	213	
Meningitis Meningococcus	3	1	66	3
Mennigococcus		1	9	3

DEATHS FROM REPORTABLE DISEASES November, 1954

Urban-Cancer, 77; Pneumonia, Lobar (490), 2; Pneumonia (other forms), 12; Syphilis, 1; Tuberculosis, 5; Whooping Cough, 2; Diarrhoea and Enteritis, 1; Septicaemia and Pyaemia, 2; Chickenpox, 1. Other deaths under 1 year, 23. Other deaths over 1 year, 262. Stillbirths, 12. Total, 297.

Rural-Cancer, 44; Pneumonia, Lobar (490), 1; Pneumonia (other forms), 10; Poliomyelitis, 1; Tuberculosis, 4. Other deaths under 1 year, 17. Other deaths, over 1 year, 169. Stillbirths, 13. Total, 199.

Indians - Pneumonia (other forms), 3; Tuberculosis, 2; Diarrhoea and Enteritis, 1. Other deaths under 1 year, 2. Other deaths over 1 year, 6. Stillbirths, 1. Total, 9.

Poliomyelitis-With 116 cases and two deaths reported so far this year appears to be finished until next epidemic.

Chickenpox, Measles and Mumps are quite prevalent at the present time.

Diphtheria-Still no cases reported in 1954!

Whooping Cough-Up a little this year but much less than in years past.

Nutritional Diseases-Some cases of scurvy and mild rickets are being reported to the Department. Education of the mothers is necessary to make sure that the babies receive adequate amounts of vitamins C and D the year

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Detailmen's Directory

Representing Review Advertisers in this issue, whose names are not listed under a business address.

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Municipal Doctor — Position vacant for Rural Municipality of Franklin. House and office space available in Dominion City. For further particulars apply to: R. W. Witty, Dominion City, Manitoba.

Medical Doctor Required

Applications will be received for the posi= tion of Municipal Doctor under a Municipal Contract. Salary up to \$6,000.00 plus ar expense allowance per annum. Residence and office accommodation available. Apply to I. L. Leavens, Secretary-Treasurer, R.M. of Strathcona, Belmont, Manitoba.

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